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ABSTRACT

This sourcebook describes specific sources of potential utility to those responsible for designing, installing, and operating competency-based education (CBE) programs. Four major types of resources are described--available materials from which selections may be made; products that provide guidelines for selecting from available materials; products that provide guidelines for developing materials; and references on the processes, problems, and potential of CBE. These resources are compiled into four content categories corresponding to major components of CBE--outcomes, measures, instruction, and instructional management and recordkeeping. For easy access, source descriptions are indexed by component (related to resource type and topic), by title, and by originator (developer, author, agency, or the like). (Author/IRT)

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Competency Based Education Sourcebook

SECOND EDITION

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Pamela J. Cutting, Editor

Northwest
Regional
Educational
Laboratory

Competency Based Education Program
Robert Gourley, Director

EA 011 148

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The Program is particularly indebted to those persons who prepared and critiqued the first edition of the Sourcebook.

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PREFACE

Competency Based Education in Oregon

The Oregon Board of Education has mandated a set of competency based educational processes to be implemented by local school districts.* Local districts have flexibility in defining instructional outcomes and in selecting or designing procedures and materials for instruction, measurement and instructional management and record-keeping. While they provide this flexibility, the state-mandated competency based education (CBE) processes are directed at

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*Oregon Administrative Rules 22-200 through 22-300 (Minimum Standards) 23 June 1976.

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ensuring (1) that Oregon's public school education is based on outcomes that are stated explictly and publicly and (2) that these outcomes are promoted and verified through carefully determined procedures. The state-mandated processes also reflect a responsibility to provide schooling that is effective and appropriate for all students, schooling that is directed toward ensuring each child's attainment of the competencies necessary to function effectively in society and schooling that promotes outcomes far beyond a "minimum set"--outcomes that cumulatively represent the ideals of enlightened education in the best judgment of the community and of society.

The Competency Based Education Program of the Northwest Regional Educational Laboratory (NWREL) is funded by the National Institute of Education to study and assist the implementation of competency based education in Oregon and other selected state and local education agencies across the nation.

CBE and Instructional Program Planning

Instructional programs may be conceptualized in terms of four components: (1) the desired outcomes that are stated, (2) the methods by which students' attainment of those outcomes are measured, (3) the means by which instruction is provided to students and (4) the procedures by which information about students' outcome attainment is recorded, reported and used. CBE processes have implications for these four components of instructional programs. The components described below are consistent with the basic elements of most CBE definitions.

Component	Definition
OUTCOMES	Prespecification of the desired instructional outcomes stated in terms of observable student performance (In some CBE programs, some of the outcomes are called competencies. They are required outcomes that reflect the ability to function effectively in the roles outside of school.)
MEASURES	Materials and procedures for determining students' attainment of outcomes (The measures should (a) require that students perform as stated in the outcomes, (b) adequately represent any content specified in the outcome statements and (c) require performance in a mode appropriate for students.)
INSTRUCTION	Materials and procedures for promoting students' attainment of the stated outcomes
MANAGEMENT	Materials and procedures for recording each student's progress toward the attainment of program outcomes (The instructional management system should provide information on pupil and class performance for evaluating the effectiveness of instruction and introducing appropriate revisions and should ensure that program information is arrayed in a clear format for access by or reporting to interested audiences.)

Analyzing instructional programs in terms of these four components reveals program strengths and weaknesses and provides a sound basis for careful and systematic instructional planning and decision making.

- If the desired educational outcomes are stated in terms of observable student performance and clearly stated performance standards are provided as evidence of outcome attainment, it is possible to judge the relative value of the outcomes (i.e., is the outcome important, and is it attainable?).

- If the outcome attainment measures are referenced at the stated outcomes, it is possible to make valid judgments concerning students' placement and progress in the program--judgments based on reliable information regarding the status of each student on each program outcome. Such measurement also permits evaluation of the effectiveness of the instruction in promoting the desired outcomes (i.e., is the program accomplishing what it is designed to accomplish?).

- Given clearly stated outcomes and adequate measures to assess student attainment of those outcomes, the selection or design of instruction is facilitated. For example, it is possible to judge the compatibility of materials with the stated desired outcomes and to determine the extent to which instructional materials present evidence of their effectiveness in promoting those outcomes. While formats for instruction are expected to vary widely, the criteria of compatibility (with program outcomes) and effectiveness (in achieving expected levels of accomplishment) should be applied to any instructional product (i.e., is the instruction appropriate, and is it verified as effective?).

- If the management system reports students' progress toward outcome attainment, informed judgments can be made concerning general program effectiveness and students' needs. Decisions can be made concerning program modification and supplementary or individualized instruction for students. Such a system of instructional management and record-keeping not only facilitates reporting students' performances but provides data for crediting instructional accomplishments to the community and to other audiences.

The CBE Sourcebook has been prepared in response to the stated needs of educators for a description of the resources available and useful for the installation and operation of CBE programs. As CBE programs may vary widely in focus, the materials included in the Sourcebook represent a wide array of resources. The utility of any resource for a given program will vary with specific program characteristics within the broader CBE framework.

INTRODUCTION

The CBE Sourcebook

The CBE Sourcebook describes specific sources of potential utility to those responsible for designing, installing and operating competency based education programs.

Four major types of resources are described:

1. Available materials from which selections may be made
2. Products that provide guidelines for selecting from available materials
3. Products that provide guidelines for developing materials

4. References on the processes, problems and potential of competency based education

These resources are compiled into four content categories, corresponding to major components of CBE: (a) OUTCOMES, (b) MEASURES, (c) INSTRUCTION and (d) Instructional MANAGEMENT and Record-Keeping. For easy access, source descriptions are indexed by component (related to resource type and topic), by title and by originator (developer, author, agency, etc.) Sourcebook item selection procedures and criteria are described in the following section of the Introduction.

The Sourcebook Item Selection Process

Systematic efforts were made to locate resources for inclusion in the CBE Sourcebook. Information regarding potential inclusions was obtained through:

1. Contacts with Oregon schools and the Oregon Department of Education
2. Personal contacts with the developers of selected resource books
3. Contacts with educational research and development centers
4. Contacts with commercial educational publishers
5. A search of the sources identified below

The following sources were searched for potential items for inclusion:

- Education Resources Information Center (ERIC), National Institute of Education, Washington, D.C. 20208

  ERIC is a national computerized educational information system which collects, processes and makes available a wide range of educational documents.

- The Catalog of NIE Education Products, National Institute of Education, Washington, D.C. 20208

  This two-volume catalog, published in 1975, contains descriptive information on 660 products developed with Federal research and development funds.

- The Council for Educational Development and Research (CEDaR) Publications, Suite 206, 1518 K Street NW, Washington, D.C. 20005

  The CEDaR Catalog describes completed and anticipated products from ten national educational laboratories and nine university-based research and development centers.

- Three sourcebooks describing teacher education materials:

  1. The Florida Catalog of Competency-Based Teacher Training Materials, Panhandle Area Educational Cooperative, P.O. Drawer 190, Chipley, Florida 32428

  2. Resources for Performance Based Education, W. Robert Houston

  3. The Stanford Catalog for Teacher Training Materials (This catalog is no longer available, but a related revised and updated service for disseminating information on teacher inservice materials is being developed by the Far West Laboratory for Educational Research and Development.)

- The Educational Dissemination and Linking Agent Sourcebook, Far West Laboratory for Educational Research and Development, 1855 Folsom Street, San Francisco, California 94103

  This sourcebook describes the products of nine educational laboratories and R&D centers. The products described have the common objective of providing change agents with training resources or job aids.

For some component categories of the CBE Sourcebook, selection was made from hundreds of available products. For others, only a few quality resources were available. The number of commercially available instructional programs, for example, was sharply contrasted with the number of products available to assist users in selecting programs. In cases where the number of potential entries was unmanageable, secondary sources, such as descriptive compilations, were employed.

In the selection process for Sourcebook extras, available products and materials were obtained, examined and evaluated* using the following two criteria:

1. Is the product or material compatible with the goals and processes of CBE?
2. Is the product demonstrably effective in promoting its stated goals (when appropriate)?

In examining products, priority was given to products that had undergone rigorous validation processes, where appropriate, and to resources that were demonstrably effective in educational settings. Priority was also given to products that, while not formally validated through traditional research and development methods, appeared to possess characteristics of quality educational resources.

As with all products developed by the Competency Based Education Program, this CBE Sourcebook has been refined through a process of tryout and revision. This current version has been field tested and subsequently revised for usefulness and clarity of (1) the introductory sections and indices, (2) the resource descriptions and (3) the overall format.

Using This Sourcebook

The items included in the Sourcebook are catalogued according to component. That is, the resources surveyed for inclusion have been placed in one of four categories: Outcomes, Measures, Instruction or

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*A report detailing the selection procedures is available upon request from the Competency Based Education Program.

Management. In each category are four subcategories: Available Materials, Selection Procedures, Developmental Instructions and References. Each item in the Sourcebook has been classified according to component of CBE, e.g., Outcomes, and type of reference, e.g., Developmental Instructions.

The Table of Contents lists only the categories and subcategories. The Indices list the items by component and type, by title and by originator. The Component Index presents the items in order of classification, the order in which the descriptions appear in the book. The title and originator indices are, of course, alphabetical.

To find an item in the Sourcebook, it is possible to use the Component Index (if the goal is to find a resource in a particular classification, e.g., Measures--References), the Title Index (if a specific system is required and the title is known) or the Originator Index (if the author is known but not the title).

Each description follows the format described on the next page. In groups of related materials, however, certain information may appear only once and be referenced on succeeding item descriptions.

OUTCOMES: AVAILABLE MATERIALS

Title of Product	
Descriptor	Summarizes the format, content, intended audience and purpose of the product
Publication Date(s)	Indicates publication dates and any special features of a resource (e.g., illus., appen., biblio.)
Originator	Names the author, developer and/or agency that sponsored the development
Intended Users	Indicates audience for whom the product is intended
Purpose	Identifies the rationale for development, the main goals and outcome expectations of the product
Content	Specifies the major content or focus on the product
Usefulness Related to CBE	Describes the potential usefulness of the product to the implementation of CBE
History of Development	Specifies the development history of the product
Main Activities	Describes the activities (if any) in which users engage
Provisions for Use	Describes product format, optimum number and kinds of personnel for which the product is designed, product components and the time required for product use
Conditions of Use	Describes constraints on implementation of the product in a CBE context and any organizational or personnel prerequisites
Related Materials	Lists other materials that are companion products for a CBE-related function
Ordering Information	Provides information on cost and ordering procedures

INDICES

Component Index

Title Index

Originator Index

OUTCOMES

MEASURES

INSTRUCTION

MANAGEMENT

INDICES

Using These Indices

Three indices have been provided to facilitate use of the Sourcebook. They are as follows: COMPONENT INDEX, TITLE INDEX, ORIGINATOR INDEX.

If you need a quick topical perusal of one or more sections, consult the COMPONENT INDEX. As stated earlier, there are four components--OUTCOMES, MEASURES, INSTRUCTION and MANAGEMENT. All titles within each component are listed in the same sequential order that they appear in the Sourcebook. In addition, each title is accompanied by a brief description of the item.

If you are looking for a specific item, but you don't know which component it would be classified under, consult the TITLE INDEX. All items are listed in alphabetical order.

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If you want to know which items have been included by a particular author, R&D center, etc., consult the ORIGINATOR INDEX. These are also listed alphabetically.

INDICES

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Title Index

Originator Index

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MEASURES

INSTRUCTION

MANAGEMENT

COMPONENT INDEX

OUTCOMES: AVAILABLE MATERIALS

119 Tri-County Goal Development Project Learning Goal Collections

A 12-volume set of 15,000 program and course goals in twelve basic K-12 subject areas, with two accompanying volumes

123 K-12 Course Goals in Art

A collection of content-specific learning goals in art for grades K-12

125 K-12 Course Goals in Biological and Physical Science

A collection of content-specific learning goals in biological and physical sciences for grades K-12

127 K-12 Course Goals in Business Education

A collection of content-specific learning goals in business education for grades K-12

129 K-12 Course Goals in Health Education

A collection of content-specific learning goals in health education for grades K-12

131 **K-12 Course Goals in Home Economics**

A collection of content-specific learning goals in home economics for grades K-12

133 **K-12 Course Goals in Industrial Education**

A collection of content-specific learning goals in industrial education for grades K-12

135 **K-12 Course Goals in Language Arts**

A collection of content-specific learning goals in language arts for grades K-12

137 **K-12 Course Goals in Mathematics**

A collection of content-specific learning goals in mathematics for grades K-12

139 **K-12 Course Goals in Music**

A collection of content-specific learning goals in music for grades K-12

141 **K-12 Course Goals in Physical Education**

A collection of content-specific learning goals in physical education for grades K-12

143 **K-12 Course Goals in Second Language**

A collection of content-specific learning goals in second language for grades K-12

145 **K-12 Course Goals in Social Science**

A collection of content-specific learning goals in social science for grades K-12

147 **Educational Goals**

A list of general goal statements with a description of procedures for their development

149 **Behavioral Objectives: Language and Literature, Grades K-12**

Behavioral objectives for courses in English, grades K-12

151 High Priority Objectives for Reading in Florida, Ages 7-9

A list of behavioral objectives of reading, chosen by teachers and reading specialists for Florida learners, ages seven and nine

153 IOX Measurable Objectives Collections

A collection of 52 sets of content-general objectives with accompanying sample test items for all areas of schooling

155 Language Arts: Decoding Skills K-12 (No. 1R)

A collection of 118 content-general objectives with five sample test items per objective

157 Language Arts: Listening, Oral Expression, and Journalism K-12 (No. 6R)

A collection of 100 content-general objectives with at least one sample test item per objective

159 Language Arts: Comprehension Skills K-12 (No. 2R)

A collection of 91 content-general objectives with at least one sample test item per objective

161 Language Arts: Composition Skills K-12 (No. 4R)

A collection of 171 content-general objectives with at least one sample test item per objective

163 Music K-6 (No. 31)

A collection of 97 objectives, including measurement items for judging the adequacy of student responses

165 Attitudes Related to Tolerance 9-12 (No. 36)

A collection of 13 affective objectives and measuring devices to assess secondary students' tolerance of other secondary students' values and opinions

167 Attitudes Toward School K-12 (No. 35R)

A collection of 42 affective objectives and related measurement instruments to be used in group assessment

169 Judgment: Analyzing Fallacies and Weaknesses in Arguments 7-12 (No. 50)

A collection of 34 content-general objectives describing types of fallacious arguments and sample items for purposes of identification

171 Judgment: Deductive Logic and Assumptive Recognition 7-12 (No. 37)

A collection of seven affective objectives and related measuring devices to assess students' ability to exercise critical judgment

173 Knowledge and Attitudes of Drug Usage 4-12 (No. 41)

A collection of 24 objectives including cognitive and affective measures for use in developing effective drug education programs

175 Measures of Self-Concept K-12 (No. 34R)

A collection of 30 affective objectives and related measurement instruments to be used in group assessment

179 Behavioral Objectives--Test Item Bank

A collection of objectives and related test items covering four subject areas in each of four grade levels

181 Primary Language Arts

A collection of approximately 489 behavioral objectives with 3,635 related test items for primary language arts instruction

183 Primary Mathematics

A collection of 80 behavioral objectives with 574 related test items for primary mathematics instruction

185 Primary Social Studies

A collection of 50 behavioral objectives and 334 related test items for primary social studies instruction

187 Primary Science

A collection of 89 behavioral objectives with 389 related test items for primary science instruction

189 Intermediate Language Arts

A collection of 202 behavioral objectives with 2,349 related test items for intermediate language arts instruction

191 Intermediate Mathematics

A collection of 279 behavioral objectives with 2,675 related test items for intermediate mathematics instruction

193 Intermediate Social Studies

A collection of 300 behavioral objectives with 2,792 related test items for intermediate social studies instruction

195 Intermediate Science

A collection of 229 behavioral objectives with 1,078 related test items for intermediate science instruction

197 Junior High Language Arts

A collection of 217 behavioral objectives with 2,701 related test items for junior high language arts instruction

199 Junior High Mathematics

A collection of 260 behavioral objectives with 681 related test items for junior high mathematics instruction

201 Junior High Science

A collection of 152 behavioral objectives with 1,153 related test items for junior high science instruction

203 High School Language Arts

A collection of 571 behavioral objectives with 2,188 related test items for high school language arts instruction

205 High School Mathematics

A collection of 717 behavioral objectives with 2,767 related test items for high school mathematics instruction

207 High School Science

A collection of 297 behavioral objectives with 855 related test items for high school science instruction

209 Sourcebook of Training Products in Instructional Planning and Management

A source of information about training systems for instructional planning and management

213 Clark County Curriculum Guides

Twelve teaching guides that consist of a list of behavioral objectives, suggested teaching methods and media, covering eight specific areas of the curriculum

215 Drug Abuse Education

A K-12 curriculum guide which outlines component ideas, suggested methodology and multimedia resources for drug abuse education

217 EMR Guide K-12

A guide designed to assist teachers of educable mentally retarded in fitting the educational tasks/objectives to students' needs

219 Interim Curriculum Guide: Music K-12

A teaching guide developed as a precursor to an indepth study for an articulated K-12 music curriculum guide

221 Mathematics Curriculum Guide K-6

A guide for K-6 mathematics that focuses on the concepts necessary to build a sequential mathematics program

223 Physical Education Curriculum Guide K-6

A guide for elementary teachers which uses fundamental approaches to physical education through the development of behavioral patterns

225 Physical Education Curriculum Guide 7-12

A guide for teachers which uses fundamental approaches to physical education through the development of behavioral patterns

227 Reading and the Kindergarten Child

A teaching guide which describes reading as a three-stage process in kindergarten

229 Reading Guide and Selected Multimedia 1-12

A guide for reading and curriculum specialists outlining a developmental reading program on a nongraded basis

231 Social Science Study Unit: A Multiethnic Approach

A compilation of nine units of study relating to interpersonal relations and intercultural understanding for grades K-8

233 Social Science

A curriculum guide and suggested media for grades 10-12 which uses the inquiry approach in all social science disciplines

235 Appendices G, H, I and J to the Final Report of the Evaluation Service Center for Occupational Education

The four separately published appendices describe objectives and test items in four areas of occupational education

237 Appendix G: Criterion-Referenced Item Banking in Electronics

A report which lists 162 objectives and 114 test items, including the history of development of the materials

239 Appendix H: Performance Test Development in Machine Shop

A report which describes field testing procedures and results of test items in machine shop

241 Appendix I: Performance Test for Auto Mechanics

A report which describes development procedures and test results of 47 items comprising a performance test in auto mechanics

243 Appendix J: Woodworking Objective and Test Item Bank

A report which describes procedures and results of the development of objectives and test items in woodworking

245 Education in Focus: A Collection of State Goals for Public Elementary and Secondary Education

A monograph which contains a collection of goal statements from 35 states

247 A Guide to Identifying High School Graduation Competencies: Issues and Examples

A resource for persons concerned with the process of identification, selection and adoption of graduation competencies

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OUTCOMES: SELECTION PROCEDURES

249 Pupil-Perceived Needs Assessment Package

A multimedia package to aid in the design and implementation of an assessment of school needs as perceived by pupils

251 Project Management Executive Orientation

A multimedia training product to introduce top-level school administrators to concepts and techniques of project management

255 Project Management Basic Principles

A multimedia, self-instructional training package to improve project management techniques of school personnel

259 Handbook of Comprehensive Planning in Schools

A training manual, designed to assist school personnel to define districtwide curriculum objectives and assess current school programs

263 Rural Futures Development (RFD) Strategy

A comprehensive strategy for improving the capacity of rural educational communities to identify and solve educational problems

267 Determining Instructional Purposes

A three-unit training package for educational administrators concerned with long-range planning and decision making

271 Educational Goals and Objectives: A Model Program for Community and Professional Involvement

A packet which contains activities for community goal setting and instruments for teachers in writing performance objectives

275 Interpersonal Communications

An instructional program which shows how to increase interpersonal communications

279 A Curriculum Rationale #8

A filmstrip-tape program which shows teachers how to use Ralph Tyler's society-student-subject curricular rationale

281 Deciding on Defensible Goals via Educational Needs Assessment #25

A filmstrip-tape program which describes the use of preferential ratings of objectives to aid in the selection of educational goals

283 Educational Objectives #1

A filmstrip-tape program for teachers which analyzes the attributes and advantages of measurably stated instructional objectives

287 Identifying Affective Objectives #10

A filmstrip-tape program for teachers which outlines a four-step strategy for generating noncognitive objectives

289 Project Interaction

A process of involving the educational community in developing objectives and solving problems

293 Preparing Educational Training Consultants: Skills Training (PETC I)

The first in a series of three cumulative and sequential instructional systems designed to train educators in assisting small groups to improve process skills

297 Preparing Educational Training Consultants: Consulting (PETC II)

The second in a series of three cumulative and sequential instructional systems designed to help a cadre of educators acquire process training and consulting skills

301 Preparing Educational Training Consultants: Organizational Development and Organizational Self-Renewal (PETC III)

The third in a series of three cumulative and sequential instructional systems to provide organizational development skills for educational managers and consultants

305 Interpersonal Influence

An instructional system for training educators in basic influence skills and phenomena

309 Social Conflict and Negotiative Problem Solving

An instructional system to train educators in understanding and using the process of negotiations for role responsibility, dual accountability and dealing with interpersonal conflict situations

313 Community Expectations for Student Skills

A project designed to help school districts obtain community input into the goal setting process

COMPONENT INDEX

OUTCOMES: DEVELOPMENTAL INSTRUCTIONS

317 Writing Objectives for Improved Instruction

A multimedia kit for teachers and administrators which provides instruction and practice in writing objectives

321 Educational Goals and Objectives: A Programmed Course for the Writing of Performance Objectives

A workbook for teachers who are learning to write performance objectives

325 Analyzing Learning Outcomes #11

A filmstrip-tape program which introduces task analysis of learner enroute behaviors

327 Writing Behavioral Objectives: A New Approach

A guide for educators in curriculum development attempting to state specific behavioral objectives and evaluate outcomes

329 Defining Content for Objectives #9

A filmstrip-tape program which describes how to formulate objectives which possess content generality rather than test item equivalence

331 **Establishing Performance Standards #4**

A filmstrip-tape program which describes how to distinguish between class and student minimal proficiency levels

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OUTCOMES: REFERENCES

335 Where Behavioral Objectives Exist

An inventory of sources of behavioral objectives

337 Preparing Instructional Objectives

A book which describes the role and impact of well-stated objectives in instruction

[illegible] [illegible]derations in Selecting and Using Instructional Objectives

[illegible] which explains 11 factors to consider when writing or s[illegible] [illegible]jectives for effective instruction

341 Priorities Planning: Judging the Importance of Individual Objectives

A short booklet designed to help educators choose objectives

343 Schools and Communities: Setting Goals

A booklet for schools that want to involve the community in goal setting

345 Stating Behavioral Objectives for Classroom Instruction

A practical guidebook designed to instruct the educator in the preparation of instructional objectives

347 Developing and Writing Performance Objectives

A booklet which describes a system for developing and writing performance objectives

349 Developing and Writing Process Objectives

A booklet which describes a system for developing, writing and monitoring process objectives

351 Instructional Objectives

A monograph series which provides educators with a topical discussion of issues related to instructional objectives

353 Accountability in Pupil Personnel Services: A Process Guide for the Development of Objectives

A procedural guidebook to assist pupil personnel staff in developing measurable objectives

355 Evaluating Pupil Personnel Programs

A monograph that discusses issues and procedures for guidance program evaluation

357 Behavioral Objectives: A Selected Bibliography and Brief

A paper which describes behavioral objectives, why they should be used and where they came from (An annotated bibliography is included)

359 The Use of Behavioral Objectives in Education: Reading Information Series: Where Do We Go?

A paper that reviews and synthesizes literature dealing with behavioral objectives

361 The Goals Approach to Performance Objectives

A text designed to instruct readers in the writing of performance objectives using the goals-approach technique

363 Establishing Philosophy, Goals and Need Assessment

A publication for school district staff to assist them in the preparation of educational goals and goal priorities

365 A Course of Study for Grades Kindergarten Through Eighth 1976-1978

A document which presents a school district's goals and philosophy for 18 subject matter areas

367 Saving Educational Dollars Through Quality Objectives

A collection of working papers on the writing of performance objectives

369 Writing Instructional Objectives

A text detailing procedures for creating instructional objectives

371 The Competency Movement: Problems and Solutions

An indepth report on competency based education to help administrators and school boards

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MEASURES: AVAILABLE MATERIALS

379 A Collection of Criterion-Referenced Tests: ERIC/TM Report #31

An annotated bibliography of 21 criterion-referenced tests available to program evaluators

381 IOX Objectives-Based Test Collections

Thirteen objectives-based test sets in four subject areas

383 The Northwest Evaluation Association Item Bank Collections

Collections of items in mathematics and language arts available in hard copy and computer-based format

387 Clark County Criterion-Referenced Tests

A set of criterion-referenced tests in mathematics and reading

389 Clark County Mathematics Tests

Tests which assess student mastery of behavioral objectives as provided in the Clark County Mathematics Curriculum Guide K-6

391 Mathematics Management Placement Test: Grades 3-6

A test of elementary mathematics skills to assist teachers with student diagnosis

393 Mathematics Management System Diagnostic Step Tests

Forty-eight tests which help the teacher diagnose and identify specific skills

395 Basic Mathematics Competency Test (Grades 7 and 8)

A multiple choice test used to diagnose student weaknesses in mathematics skills needed for survival in adulthood

397 Experimental Procedures Used to Field Test Mathematics Criterion-Referenced Tests for Clark County, Nevada

A detailed description of steps taken toward quality control evaluation of items in mathematics tests

399 Clark County Reading CRT, Grades 2-4

A test designed to measure student competency of specified behavioral objectives provided by the district

401 Reading Management System Placement Test

Multiple choice tests of elementary reading skills designed to assist the teacher in student diagnosis

403 Reading Management System Diagnostic Step Tests

Tests (42) which help the teacher diagnose and identify specific skills

405 Project TORQUE: A New Approach to the Assessment of Children's Mathematical Competence

A collection of criterion-referenced tests to help teachers evaluate mathematics skills of individual learners at the upper elementary level

409 The Adult APL and the High School APL Survey

A test designed to survey functional competency of adults or high school students in five areas relevant to everyday living

413 The APL Content Area Measures (CAMS)

Five indepth objectives-based content area tests designed to measure the life skills proficiency of young and mature adults

415 IOX Basic Skills Tests: Secondary Level

Criterion-referenced tests in three subject areas: reading, writing and mathematics

419 Assessment Instruments in Bilingual Education: A Descriptive Catalog of 342 Oral and Written Tests

A systematic compilation of 342 currently available tests for use in bilingual education programs ranging from preschool to adult (Thirty-eight languages are represented)

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A multimedia package to aid in the design and implementation of an assessment of school needs as perceived by pupils

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A multimedia training product to introduce top-level school administrators to concepts and techniques of project management

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An instructional kit for anyone involved in carrying out program evaluation

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A training package to assist school personnel in identification of suitable and feasible program improvements

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A workshop to teach school personnel to evaluate curriculum programs

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A training package in program evaluation

435 Writing Tests Which Measure Objectives #29

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A filmstrip-tape program for teachers which outlines the distinctions among personal, professional and public accountability

441 Alternative Measurement Tactics for Educational Evaluation #26

A filmstrip-tape program for teachers which describes a four-category system for generating measurement schemes

445 Current Conceptions of Educational Evaluation #23

A filmstrip-tape program for teachers which identifies and analyzes four important conceptual distinctions in educational evaluation

447 Management by Objectives

A multimedia kit designed to help administrators and board members implement an accountability system

601 Educational Development, Dissemination, and Evaluation (DD&E) Training Resources

A program for training professionals in educational development, dissemination and evaluation

449 ISCS Individualized Testing System

Individualized evaluation materials for teachers who wish to design assessments appropriate to student needs

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A booklet for the educational evaluator wishing to employ objectives-based measures

455 An Evaluation Guidebook--A Set of Practical Guidelines for the Educational Evaluator

A guidebook for organizing objectives, designing measures and conducting course evaluations

457 Issues and Procedures in the Development of Criterion-Referenced Tests: ERIC/TM Report #26

A nontechnical discussion of criterion-referenced tests (CRTs)

459 Tests of Functional Adult Literacy: An Evaluation of Currently Available Instruments

A detailed review of measurement instruments for teachers and administrators in adult education programs

463 CSE-RBS Test Evaluations: Tests of Higher-Order Cognitive, Affective, and Interpersonal Skills

A reference book for educators which contains an evaluation of 2,610 scales measuring cognitive, affective and interpersonal skills

465 CSE Secondary School Test Evaluations

A three-volume reference kit designed to aid school personnel in selecting tests related to school program goals

467 CSE Elementary School Test Evaluations

For evaluation specialists, a reference book which contains evaluation of standardized achievement tests in all elementary school subject areas

469 CSE-ECRC Preschool/Kindergarten Test Evaluations

A reference book for school personnel which contains evaluations of the most commonly used measures of school achievement

379 A Collection of Criterion-Referenced Tests: ERIC/TM Report #31

An annotated bibliography of 21 criterion-referenced tests available to program evaluators

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A booklet for any educator who wishes to develop a process for monitoring an instructional program through the use of performance objectives

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A research report which describes a model of psychosocial maturity based on measurable attitudes and dispositions

475 Measuring Psychosocial Maturity: A Status Report

A research report which describes the development of a self-report instrument for assessing learners, ages 11-18

477 Schools and Maturity Program: Final Report

A research report that summarizes work units of the psychosocial maturity assessment program

479 Sample Competency Tests

Portions of graduation requirement competency tests in four categories and a level six mathematics test

481 Item Characteristics and Criteria for a Test of Minimum Competencies

A paper that presents criteria and characteristics to be considered in preparing a minimum competencies test

483 The Development of Criterion-Referenced Tests: Technical Considerations

A pamphlet which describes the problem areas encountered in the development of criterion-referenced tests

485 Classroom Implications of Criterion-Referenced Tests

A pamphlet which details classroom implications of criterion-referenced tests

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A collection of short descriptions of exemplary Title I projects

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Provides indepth information about nine elementary mathematics programs

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A two-volume description of 660 products funded in whole or in part by the National Institute of Education

501 ALERT, A Sourcebook of Elementary Curricula, Programs, and Projects

A guide to selected curricula, training programs, model projects and resources in elementary education (Part of the ALERT Information System)

505 Modelog: A Catalog of Comprehensive Educational Planning Component Models

A catalog of planning models to assist school districts in identifying appropriate and effective programs based on local goals and needs

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A series of descriptive and analytic reports about educational materials

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Analyses of 76 commonly used reading materials

511 Analyses of Elementary School Mathematics Materials (EPIE Report #69/70)

Comparative systematic analyses of 18 elementary mathematics programs

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Analyses of the instructional design of materials for preschool children

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An evaluative report describing three art programs, two visual education programs and resources for teachers of art classes

517 Materials for Individualizing Mathematics Instruction (EPIE Report #65)

Analyses of 26 individualized instructional systems in mathematics

519 Secondary School Social Studies: Analyses of 31 Textbook Programs (EPIE Report #71)

Contains systematic, comparative analyses of social studies programs

521 Secondary Social Studies Information Unit--A Review and Analysis of Curriculum Alternatives

A collection of descriptions of 36 secondary social studies programs

523 Social Studies Curriculum Materials: Data Book

A collection of social studies curriculum resources available for use by elementary and secondary teachers

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The kit enables users to apply an updated set of criteria when selecting instructional resources

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A team-learning program which explores methods of communicating research and development information to the educational practitioner

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A self-instructional training unit which provides a six-step model of the process of selecting an instructional program to meet local needs

537 Selecting and Evaluating Beginning Reading Materials--A How-To Handbook (EPIE Report #62/63)

A report which describes a process for analyzing and selecting reading materials

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A multimedia training product to introduce top-level administrators to concepts and techniques of project management

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A multimedia review of six science curricula to aid school personnel in deciding which of the programs suit their own situations

541 **Research Utilizing Problem Solving (RUPS)**

An instructional program to give teachers and administrators skills and techniques in retrieving and utilizing knowledge used in resolving classroom problems

547 **Computer Applications in Instruction: A Teacher's Guide to Selection and Use**

A workshop designed to prepare elementary and secondary teachers to select and use computer-related instructional applications

549 **Material Selection. B-1. Evaluating and Selecting Learning Materials. Document No. 10d, Revised. Independent Study Training Materials for Professional Supervisory Competencies**

A self-instructional learning packet on learning material evaluation and selection

551 **Designing a Study of Available Resources. B3. Evaluating the Utilization of Learning Resources**

A self-instructional learning packet which details a process for determining the appropriateness of learning resources

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A training program which provides initial skills and competencies in the application of instructional systems principles

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A 15-unit workshop in which curriculum specialists write objectives and design and evaluate instruction

561 Learning System Design (LSD)

A multimedia series for use in preservice or inservice which outlines techniques for instructional design

565 Classroom and Instructional Management (CLAIM)

An eight-unit teacher training program which concentrates on development of positive classroom environment through behavior analysis

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569 Mastery Teaching

An audiovisual print program designed to equip teachers with skills and a plan for increasing the achievement of their students

573 Toward Competency: A Guide for Individualized Instruction

A guide to assist special education teachers in developing programs of instruction for students unable to complete the regular school program

577 The Analysis of Behavior in Planning Instruction

A textbook in methods of designing and evaluating curriculum materials

581 Preparing and Using Individualized Learning Packages for Ungraded, Continuous Progress Education

A textbook for educators which presents the Individualized Learning Package approach to instructional management through curriculum design

585 Discipline in the Classroom #15

A filmstrip-tape program for teachers which illustrates how to apply contingency management procedures to problems of classroom control

589 Individualizing Instruction #21

A filmstrip-tape program for teachers that describes how to adapt classroom instruction to individual differences among learners

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A teacher training minicourse which illustrates organizational skills for individualized instruction

597 Organizing Independent Learning: Intermediate Level (Minicourse 15)

A teacher training minicourse designed to help in applying research based independent learning skills

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A program for training professionals in educational development, dissemination and evaluation

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A filmstrip-tape program that explains a consequence-oriented approach to supervision

609 Knowledge of Results #12

A filmstrip-tape program that presents guidelines for providing students with immediate feedback regarding their performance

425 Curriculum and Instruction: Planning Improvement

A training package to assist school personnel in identification of suitable and feasible program improvements

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A filmstrip-tape program for teachers which describes three tactics--modeling, contiguity and reinforcement--for the promotion of affective objectives

615 Teaching Units and Lesson Plans #13

A filmstrip-tape program for teachers which provides an examination of key ingredients of effective written instructional plans

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A self-instructional system for teachers who want to learn how to plan, write and evaluate learning activities or instructional packages (LAPs)

623 Individualizing Instruction: Materials and Classroom Procedures

A textbook about individualizing instruction which utilizes techniques of individualized instruction

627 Design and Development of Curricular Materials

A self-instructional training course in instructional design

631 A Competency-Based Instructional Approach for Teachers in Secondary Schools in Low-Income Urban Areas

A dissertation which provides secondary teachers in low-income urban areas with an instructional package to assist them in the construction of competency-based instructional modules for students

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A book that provides explanatory information on the rationale for curriculum and instruction in an educational setting

635 Guidelines for Developing a Competency-Based Inservice Teacher Education Program

A book of guidelines to assist school districts in planning a transition from traditional inservice to competency based inservice

637 Competency Tests and Graduation Requirements

A monograph for administrators that describes background information and the current movement toward competency tests as graduation requirements

639 CAREER.SEX.RACE Analysis Kit

A kit designed to assist educators, parents and others in identifying sex/race/career bias in curriculum materials

641 Guidelines for Establishing an Objective-Based Curriculum: Occasional Paper #8

A paper which outlines suggestions for the development of an objective-based instructional program

643 Learning Activity Packages

A document that describes learning activity packages as one approach to individualized instruction

645 Instructional Design: A Plan for Unit and Course Development

A text which introduces a systematic instructional design plan for unit and course development

647 Relevant Educational Applications of Computer Technology (REACT) Course II: Computer Oriented Curriculum

A training course to introduce teachers and administrators to the potential applications of computer technology to five subject areas

649 Experience-Based Learning: How to Make the Community Your Classroom

A guidebook designed to assist educators in implementing an experience-based learning approach

651 Preparing and Using Individualized Learning Packages for Ungraded Continuous Progress Education

A text designed to assist in the development and use of Individualized Learning Packages (ILPs)

653 Manual on Testing

A manual for teachers and educators who want information about tests and testing

655 CBE In-Service Training Workshop Materials: Modules #1-5

A set of five modules designed to familiarize users with the elements of competency based instruction

657 Professional Vocational Teacher Education Curriculum

100 performance-based vocational teacher education modules and related supportive materials

661 Keys to Community Involvement

A series of 15 practical easy-to-read guides to improve and promote citizen participation in decision making

665 Toward Individualized Learning: A Developer's Guide to Self-Instruction

A text that presents a detailed process for the development of a learning package

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An assessment of three comparable, well-developed systems that stress individualized instruction

679 System for Objectives-Based Assessment Reading (SOBAR)

An objectives-based system to measure reading achievement for K-12 students; part of a mastery testing program in reading and mathematics

683 TRACER

A computer program designed to assist the teacher with record-keeping

685 Individually Guided Education (Multiunit School Implementation)

An alternative form of public schooling which focuses on student development through individualized curriculum and instruction

689 Student-Centered Instructional System (SCIS): Mathematics

An objectives-based instructional system for seventh grade mathematics

691 Planning the Education of Oregon Learners: Setting Goals

A pamphlet for school districts that presents the statewide goals for education and discusses the purpose and rationale for statewide and local goals

693 Planning the Education of Oregon Learners: Completing the Management Cycle

A pamphlet for school districts that describes procedures for gathering data on the extent to which statewide goals are being attained

695 Planning for Program Implementation: A Process Guide

A guidebook for planning groups considering the implementation of an education project or program

697 Handbook for Goal-Based Curriculum Planning and Implementation

A handbook designed for educators who want to implement a goal-based instructional curriculum

699 The Computer in Educational Decision-Making: An Introduction and Guide for School Administrators

A text which uses interactive computer programs and supporting instructional materials to provide hands-on experience in operations research in management and administration

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A training workshop designed to provide educational administrators with skills for designing and conducting an evaluation and for utilizing the results

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715 School Planning, Evaluation, and Communication System (SPECS)

A set of processes for collecting and analyzing data describing school system outcomes, processes and costs

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An inservice workshop which provides teachers and administrators with skills for managing learning experiences

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Semi-automated system which provides information about reading instruction and achievement

727 SWRL Proficiency Verification System (PVS): Mathematics

Semi-automated system which provides information about mathematics instruction and achievement

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A preservice and inservice program designed to provide curriculum development skills for classroom teachers, supervisory and administrative personnel

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A report that describes ways of reporting test data to parent and community groups

735 Evaluating Classroom Progress

A brief report that describes a system for continuous classroom evaluation of individual learners

737 Profiling and Tracking Students in C/PBTE Programs

A technical assistance paper which details record-keeping systems for Competency/Performance-Based Teacher Education Programs

739 OTIS Users' Competency Recordkeeping Handbook

A description of the applications and uses of a competency record-keeping system in Oregon

741 Record Keeping for Individualized Instructional Programs

A publication which provides a model for two record-keeping systems to be used with individualized instructional programs

743 Needs Assessment: A Manual for the Local Educational Planner

A manual which outlines a systematic process for identifying a needs assessment process and selecting solutions for meeting those needs

745 A Comparative Analysis of Two Modes of Implementing Competency Based Instructional Systems

A paper presented at the 1974 AERA Convention which examines two methods for developing and implementing the basic components of competency based education

747 Planning and Conducting Individualized Inservice Workshops

A report that presents a process for designing and conducting individualized inservice workshops

749 Management by Objectives and Results: A Guide Book for Today's School Executive

An overview of the Management by Objectives and Results movement for educational managers and administrators

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OUTCOMES

MEASURES

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MANAGEMENT

IDENTIFYING INSTRUCTIONAL OUTCOMES

Terms such as goals, objectives, outcomes and competencies are all used to denote the intent of instruction or schooling. While some educators use these terms interchangeably, others attach distinctive meanings to each term. The terms objective, outcome and competency generally will be used interchangeably in this Sourcebook.* The term goal generally will be used to describe a broad purpose or intent of instruction. These broad statements, while acceptable in some contexts, are unacceptable in others. Consider such a goal statement as "By the end of the term, the student will understand the organization of the orchestra." Such a general statement of intent provides unclear parameters within the context of planning instruction and evaluation. There are too many possible interpretations of that goal. Although all of the following behaviors could be appropriate, notice that the promotion of each would require very different instruction.

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*When competency is intended to connote outcomes of schooling that are deemed particularly critical to effective post-school functioning, the term life role-relevant competency will be employed.

1. Given a recording of each orchestral instrument played in solo, the student will name the family to which each belongs.
2. Given pictures of each of the instruments of the orchestra and a list of names of the instruments, the student will identify each instrument by name.
3. Given a diagram of the orchestra, the student will label the string, woodwind, percussion and brass sections.

Within the context of specific instructional planning and evaluation, then, overly general statements are inappropriate.

The appropriate level of generality or specificity in stating instructional intent is of concern in education. If school personnel attempt to identify the total range of objectives related to any course or content area and then follow this by writing performance measures to assess each objective, the associated testing and record-keeping tasks may be unmanageable. Broadly stated goals, on the other hand, provide inadequate bases for planning and decision making. More useful, clearly, are objectives of appropriate but not excessive specificity. "Appropriately specific" objectives, however, are hard to come by and are difficult to write. Even assuming their availability, however, they present educators with new problems.

Any public statements of objectives are open to criticism. Further, record-keeping tasks related to the attainment of objectives may be viewed as complicated or burdensome. In efforts to deal with criticism of objectives, many schools have moved toward community involvement in setting the objectives of schooling. Similarly, to alleviate record-keeping burdens, many schools have taken advantage of computer technology. In schools where computer-assisted record-keeping is not currently feasible, the record-keeping has been made more manageable by focusing on a limited number of high priority objectives rather than attempting to assess the total range. Popham (see page 455) describes the numerous benefits that have been realized by a high school completion program in which teachers made a deliberate attempt to reduce the number of target objectives by isolating powerful objectives which subsumed en route skills.

The development of a manageable number of clearly stated, measurable, worthwhile objectives is a critical task in the design of a CBE program. The task is not easily accomplished. It is frequently described as being extremely rewarding, as well as difficult and time consuming. The time required to establish a set of outcomes depends in part upon the procedures and resources used. It is no longer necessary, for example, for schools to write their own objectives in every curriculum area. Some excellent collections are available and some are accompanied by test items referenced to the outcomes. Users may select a set of outcomes from available lists and augment the set with additional objectives as appropriate.

This section of the CBE Sourcebook describes available materials and resources useful in identification, selection and development of outcomes.

Available Materials--Users may select appropriate and desirable outcomes from these materials

Selection Procedures--Products which assist the user in
(a) making informed selections from available materials and
(b) involving other school personnel and community members in the outcome-selection process

Developmental Instructions--Products which teach users to write and revise their own objectives

References--References which provide information related to identification of instructional outcomes

OUTCOMES: AVAILABLE MATERIALS

Title: Tri-County Goal Development Project Learning Goal Collections

Descriptor: A collection of 15,000 program and course goals in twelve basic K-12 subject areas

Originator: The Tri-County Goal Development Project is a cooperative project of the Oregon school districts in Clackamas, Multnomah and Washington counties. It has been partially funded through grants from the Oregon State Department of Education, the Office of the Superintendent of Public Instruction, the state of Washington and the United States Office of Education, Department of Health, Education and Welfare.

Intended Users: Curriculum planners seeking to help teachers specify learning goals

Purpose/ Content: The collection of 15,000 learning goals covers the knowledge processes, values and attitudes which nearly 200 master teachers and curriculum specialists believe students in grades K-12 might be expected to learn in all major fields of instruction. Two types of goals are included:

1. Program Goals are stated broadly to aid in defining the scope of programs such as science at the school system level.
2. Course Goals are stated to aid in planning the specific learnings to be achieved in courses such as algebra or primary grade science.

Seven to 20 program goals are stated for each of 12 subject areas. As many as 200 course goals are included for each program goal. Special features of the collection are:

- Comprehensive taxonomies of subject matter, knowledge process and value and attitude learning to help locate and interpret goals
- Integration of basic skills and the total curriculum
- Integration of career education and the total curriculum
- Coding to show relationships between learning goals and the values and concepts they reinforce
- Coding for easy interdisciplinary curriculum development and course planning

Usefulness Related to CBE: (Continued)

The collection of learning goals can be used to bring goal-based planning, instruction and evaluation closer to realization. They are a set of nonprescriptive student learning outcomes which can be used to:

- Clarify goals of a school district to students, teachers, parents and the community
- Guide the selection and development of teaching materials
- Organize instruction
- Evaluate the outcomes of instruction and increase accountability

Learning Goals are viewed by the developers as a means of communication about learning, rather than a source of confining, oversimplistic and mechanistic control of teachers and learners.

History of Development:

More than 200 teachers from more than 55 school districts in the Portland, Oregon, metropolitan area spent three years writing, selecting and classifying learning goals.

With the assistance of curriculum specialists, evaluation specialists and university consultants they:

- Developed a classification of knowledge process and value and attitude goals after reviewing the theoretical work of Bloom, Gagne, Piaget, Krathwohl, Walbesser, Tyler, Mager and others
- Developed comprehensive taxonomies of the subject matter of the instructional fields for which goals were to be written
- Wrote statements of student learning outcomes (goals) that comprehensively covered the subject area described in each taxonomy
- Compared goals to numerous local goal collections and commercially developed collections of behavioral objectives (such as the IOX Collection, Westinghouse Learning Project PLAN Collection and the National Assessment Collection) to insure that learning in these collections was represented
- Circulated drafts of learning goals for critique and revision

More than 50,000 copies of the collections are currently in use throughout the nation.

Related Materials:	Trainer manuals and slide-tape presentations on how to use the goal collections are under development. For information contact: Mr. Robert Allenbrand Multnomah County Intermediate Education District P.O. Box 16657 Portland, Oregon 97216
Ordering Information:	Write: Commercial Educational Distributing Services 8116 S.W. Nimbus Beaverton, Oregon 97005 Prices subject to change; 33% discount on Oregon/Washington orders. The cost of individual course goals collections is included with each description.

The following pages include descriptions of the course goals collections in the 12 subject areas described.

122

Title: K-12 Course Goals in Art

Descriptor: A collection of content-specific learning goals in art for grades K-12

Publication Date(s): 1974, 284 pp.

Originator: Tri-County Goal Development Project

Intended Users: Curriculum planners and teachers involved in specifying learning goals

Purpose/ Content: The course goals are arranged according to a detailed taxonomy. The major headings of the taxonomy for art are: (1) developing and using awareness, (2) history and culture orientation, (3) composition and language, (4) processes and products and (5) art and design in environments.

A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.

Usefulness Related to CBE: See page 120

History of Development: The group of developers consisted of more than 20 teachers, curriculum specialists, university consultants and editors from the Portland metropolitan area. They were responsible for writing, selecting and classifying the learning goals.

A critique edition was produced in 1972 and an editorial revision was made in 1974, borrowing from the results of field review. To date, no complete revision has been made.

Related Materials: See page 121

Ordering Information: See page 121

Cost: $10.00

Title: K-12 Course Goals in Biological and Physical Science

Descriptor: A collection of content-specific learning goals in biological and physical science for grades K-12

Publication Date(s): 1973 (Revised Edition), 903 pp.

Originator: Tri-County Goal Development Project

Purpose/ Content: The course goals are arranged in a detailed taxonomy. The major headings for biological and physical science are: (1) values and science, (2) processes and science, (3) biology, (4) chemistry, (5) physics, (6) earth and space science, (7) reading and science and (8) science and career education.

A list of general program goals is provided in the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.

Usefulness Related to CBE: See page 120

History of Development: A critique edition was produced in 1971. After extensive field review by users, the current revised edition was produced in 1973 by a different and larger group of teachers, specialists, consultants and editors.

Related Materials: See page 121

Ordering Information: See page 121

Cost: $30.00

Title: K-12 Course Goals in Business Education

Descriptor: A collection of content-specific learning goals in business educaton for grades K-12

Publication Date(s): 1973, 297 pp.

Originator: Tri-County Goal Development Project

Intended Users: Curriculum planners and teachers involved in specifying learning goals.

Purpose/ Content: The course goals are arranged in a detailed taxonomy. The major headings for business education are: (1) values and business education, (2) basic education and business education, (3) general business, personal finance and consumer education, (4) business organization and management, (5) business law, (6) data processing, (7) record-keeping, (8) accounting, (9) office skills, (10) distributive education/marketing and (11) careers and business education.

A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.

Usefulness Related to CBE: See page 120

History of Development: The group of developers consisted of more than 200 teachers, curriculum specialists, university consultants and editors from the Portland metropolitan area. They were responsible for writing, selecting and classifying the learning goals.

The current critique edition was produced in 1973. A field review is underway, aimed at providing information for revision. However, to date, no revision has been made.

Related Materials:	See page 121
Ordering Information:	See page 121
	Cost: $10.00

Title: K-12 Course Goals in Health Education

Descriptor: A collection of content-specific learning goals in health education for grades K-12

Publication Date(s): 1974, 314 pp.

Originator: Tri-County Goal Development Project

Purpose/Content: The course goals are arranged according to a detailed taxonomy. The major headings of the taxonomy for health education are: (1) mental health, (2) physical health, (3) community health and (4) safe living.

A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.

Usefulness Related to CBE: See page 120

History of Development: The group of developers consisted of more than 200 teachers, curriculum specialists, university consultants and editors from the Portland metropolitan area. They were responsible for writing, selecting and classifying the learning goals.

A critique edition was produced in 1972 and an editorial revision was made in 1974, based on results of a field review. No complete revision has been made to date, however.

Related Materials: See page 121

Ordering Information: See page 121

Cost: $10.00

Title: K-12 Course Goals in Home Economics

Descriptor: A collection of content-specific learning goals in home economics for grades K-12

Publication Date(s): 1973, 263 pp.

Originator: Tri-County Goal Development Project

Purpose/ Content: The course goals are arranged according to a detailed taxonomy. The major headings of the taxonomy for home economics are: (1) values and home economics, (2) basic education and home economics, (3) human development and the family, (4) clothing, (5) food and nutrition, (6) housing, (7) consumer education and management, (8) home nursing and (9) careers and home economics.

A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.

Usefulness Related to CBE: See page 120

History of Development: The group of developers consisted of more than 200 teachers, curriculum specialists, university consultants and editors from the Portland metropolitan area. They were responsible for writing, selecting and classifying the learning goals.

The current critique edition was produced in 1973. A field review is underway, aimed at providing information for revision. However, to date no revision has been made.

Related Materials: See page 121

Ordering Information: See page 121

Cost: $9.00

Title:	K-12 Course Goals in Industrial Education
Descriptor:	A collection of content-specific learning goals in industrial education for grades K-12
Publication Date(s):	1973, 228 pp.
Originator:	Tri-County Goal Development Project
Purpose/ Content:	The course goals are arranged according to a detailed taxonomy. The major headings of the taxonomy for industrial education are: (1) values and industrial education, (2) basic education and industrial education, (3) industrial system functions, (4) industrial production functions, (5) safety, (6) service properties, (7) energy and power, (8) industrial communications and (9) careers and industrial education. A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.
Usefulness Related t[illegible]E:	See page 120
Histor[illegible] Develo[illegible]	The group of developers consisted of more than 200 teachers, curriculum specialists, university [illegible]nsultants and editors from the Portland metro-[illegible]an area. They were responsible for writing, [illegible]ing and classifying the learning goals. The current critique edition was produced in 1973. A field review is underway, aimed at providing information for revision. However, to date no revision has been made.
Related Materials:	See page 121
Ordering Information:	See page 121 Cost: $8.00

Title:	K-12 Course Goals in Language Arts
Descriptor:	A collection of content-specific learning goals in language arts for grades K-12
Publication Date(s):	1973 (Revised Edition), 398 pp.
Originator:	Tri-County Goal Development Project
Purpose/ Content:	The course goals are arranged according to a detailed taxonomy. The major headings of the taxonomy for language arts are: (1) valuing and language arts, (2) language, (3) literature, (4) reading, (5) writing, (6) speaking, (7) perception and (8) language arts and career education. A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.
Usefulness Related to CBE:	See page 120
History of Development:	The group of developers consisted of more than 200 teachers, curriculum specialists, university consultants and editors from the Portland metropolitan area. They were responsible for writing, selecting and classifying the learning goals. A critique edition was produced in 1971. After extensive field review by users, the current revised edition was produced in 1973 by a different and larger group of teachers, specialists, consultants and editors.
Related Materials:	See page 121
Ordering Information:	See page 121 Cost: $12.50

Title: K-12 Course Goals in Mathematics

Descriptor: A collection of content-specific learning goals in mathematics for grades K-12

Publication Date(s): 1974, 192 pp.

Originator: Tri-County Goal Development Project

Purpose/ Content: The course goals are arranged according to a detailed taxonomy. The major headings of the taxonomy for mathematics are: (1) number systems, (2) numeration, (3) mathematical sentences and their solutions, (4) relations and functions, (5) geometry, (6) measurement, (7) sets, (8) logic, (9) probability and statistics, (10) history of mathematics and (11) computational devices.

A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.

Usefulness Related to CBE: See page 120

History of Development: The group of developers consisted of more than 200 teachers, curriculum specialists, university consultants and editors from the Portland metropolitan area. They were responsible for writing, selecting and classifying the learning goals.

A critique edition was produced in 1972, and an editorial revision was made in 1974, based on the results of field review. No complete revision has been made to date, however.

Related Materials: See page 121

Ordering Information: See page 121

Cost: $6.50

Title: K-12 Course Goals in Music

Descriptor: A collection of content-specific learning goals in music for grades K-12

Publication Date(s): 1974, 207 pp.

Originator: Tri-County Goal Development Project

Purpose/ Content: The course goals are arranged according to a detailed taxonomy. The major headings of the taxonomy for music are: (1) the elements of music, (2) reading music, (3) musical history and style, (4) listening to music, (5) performing music, (6) creating music, (7) the role of music in society and (8) valuing and evaluating music.

A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.

Usefulness Related to CBE: See page 120

History of Development: The group of developers consisted of more than 200 teachers, curriculum specialists, university consultants and editors from the Portland metropolitan area. They were responsible for writing, selecting and classifying the learning goals.

A critique edition was produced in 1972, and an editorial revision was made in 1974, based on the results of field review. No complete revision has been made to date, however.

Related Materials: See page 121

Ordering Information: See page 121

Cost: $6.50

Title: K-12 Course Goals in Physical Education

Descriptor: A collection of content-specific learning goals in physical education for grades K-12

Publication Date(s): 1974, 193 pp.

Originator: Tri-County Goal Development Project

Purpose/Content: The course goals are arranged according to a detailed taxonomy. The major headings of the taxonomy for physical education are: (1) basic skills of movement, (2) body control activities (perceptual motor activities, coordination, balance and flexibility), (3) games of low organization (beginning, relay and lead-up games), (4) team sports, (5) individual and dual sports, (6) recreational games, (7) lifetime (recreational) activities and (8) physical fitness.

A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.

Usefulness Related to CBE: See page 120

History of Development: The group of developers consisted of more than 200 teachers, curriculum specialists, university consultants and editors from the Portland metropolitan area. They were responsible for writing, selecting and classifying the learning goals.

A critique edition was produced in 1972, and an editorial revision was made in 1974, based on the results of field review. No complete revision has been made to date, however.

Related Materials: See page 121

Ordering Information: See page 121

Cost: $6.50

Title:	K-12 Course Goals in Second Language
Descriptor:	A collection of content-specific learning goals in second language for grades K-12
Publication Date(s):	1973, 177 pp.
Originator:	Tri-County Goal Development Project
Purpose/ Content:	The course goals are arranged according to a detailed taxonomy. The major headings of the taxonomy for second language are: (1) values and second language, (2) basic education and second language, (3) the function of language in society, (4) nature of the language, (5) listening, (6) speaking, (7) reading, (8) writing, (9) culture and (10) careers and second language. A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.
Usefulness Related to CBE:	See page 120
History of Development:	The group of developers consisted of more than 200 teachers, curriculum specialists, university consultants and editors from the Portland metropolitan area. They were responsible for writing, selecting and classifying the learning goals. The current critique edition was produced in 1973. A field review is underway, aimed at providing information for revision. However, to date no revision has been made.
Related Materials:	See page 121
Ordering Information:	See page 121 Cost: $6.50

Title:	K-12 Course Goals in Social Science
Descriptor:	A collection of content-specific learning goals in social science for grades K-12
Publication Date(s):	1976 (Revised Edition), 1040 pp.
Originator:	Tri-County Goal Development Project
Purpose/ Content:	The course goals are arranged according to a detailed taxonomy. The major headings of the taxonomy for social science are: (1) geography, (2) history, (3) the behavioral sciences, (4) economics and (5) political science. A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.
Usefulness Related to CBE:	See page 120
History of Development:	The group of developers consisted of more than 200 teachers, curriculum specialists, university consultants and editors from the Portland metropolitan area. They were responsible for writing, selecting and classifying the learning goals. A critique edition was produced in 1972, and an editorial revision was made in 1974, based on the results of a field review. The current revised edition was produced by a different and larger group of teachers, specialists, consultants and editors.
Related Materials:	See page 121
Ordering Information:	See page 121 Cost: $33.00

Title: Educational Goals

Descriptor: A list of general goal statements and a description of procedures for their development

Publication Date(s): December 1972, 27 pp.

Originator: Wisconsin State Department of Public Instruction, Madison

Intended Users: Boards of education, legislative bodies or related groups which might be charged with the task of developing long range plans for assessment of educational programs

Purpose/ Content: The goal statements are divided into twelve major areas: basic skills, cultural development, self-realization, human relations, mental and physical health, career education and occupational competence, cultural appreciation, lifelong learning, citizenship and political understanding, economic understanding, physical environment, and creative, constructive and critical thinking. Each goal statement is also labeled according to the group responsible for accomplishment:

1. Outcome goals--what the student needs upon leaving high school
2. Process goals--instruction to achieve learner outcome goals
3. Institutional goals--the role of educational establishments in facilitating the outcome goals

Usefulness Related to CBE: Provides basic considerations relative to the development of educational goals for public education on a statewide basis. Public response, including specific questions and resulting modifications, show some of the problems to anticipate in formulating goals.

History of Development: Action by the 1971 Wisconsin legislature delegated the responsibility of developing an assessment program to the State Superintendent of Public Instruction. Subsequently a 29-member committee was appointed, and a list of basic assumptions was written to assist in goal formulation. Public hearings were held prior to the actual writing, and testimony was received concerning 39 specific areas in public education.

History of Development: (Continued)	These goal statements were excerpted from the Final Report of the Advisory Task Force on Educational Goals for Public Elementary and Secondary Schools of Wisconsin.
Related Materials:	None
Ordering Information:	This document is available (Order No. ED 081 663) from: ERIC Document and Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: $.83 (microfiche), $2.06 (hardcopy) Plus postage

Title:	Behavioral Objectives: Language and Literature, Grades K-12
Descriptor:	Behavioral objectives for courses in English grades K-12
Publication Date(s):	1970, 115 pp.
Originator:	L. C. Leach et al., Arkansas State Department of Education, Little Rock
Intended Users:	This book is a resource for teachers and curriculum specialists. It could also be of value in planning the content for inservice in local districts.
Purpose/ Content:	There are 265 objectives of language grouped under the following headings: the nature of language, the history of language, dialect, morphology, phonology, sentence patterns, form classes, syntax and semantics. The 361 objectives of literature are grouped under children's literature, the short story, the novel, poetry, drama, the essay and critical approaches to literature. This provides the specialist with a broad base for planning curriculum content and assessing learner achievement.
Usefulness Related to CBE:	From this broad, inclusive list of objectives, teachers and specialists have a good starting point for developing a district-wide curriculum for language and literature.
History of Development:	The objectives were prepared by a group of consultants made up of Arkansas teachers, under the direction of the state specialist in English/ Language Arts. There is no evidence that field testing was done, nor were any plans indicated for revision.
Related Materials:	None

Ordering Information: This document is available (Order No. Ed 079 763) from:

ERIC Document and Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Cost: $.83 (microfiche), $6.01 (hardcopy)
Plus postage

Title:	High Priority Objectives for Reading in Florida, Ages 7-9
Descriptor:	A list of behavioral objectives in reading, chosen by teachers and reading specialists for Florida learners, ages seven and nine
Publication Date(s):	1972, 13 pp.
Originator:	Division of Elementary and Secondary Education, Florida State Department of Education, Tallahassee
Intended Users:	Reading specialists at the state and district levels
Purpose/ Content:	A description is given of the four groups into which the objectives were divided. These groups are: 1. Skills prerequisite to reading 2. Skills in the mechanics of reading 3. Skills to aid in reading comprehension 4. Utilization of reading skills Objectives are listed by level of difficulty, from easiest to most difficult. The overlap between lists for ages seven and nine permits determination of progress and retention. There are 66 objectives listed for age seven, 164 for age nine.
Usefulness Related to CBE:	Writing behavioral objectives cannot always occur simultaneously in all subject areas. Developers felt that as a basis for learning it should rightfully take precedence.
History of Development:	The original comprehensive list of reading objectives was prepared by the Center for the Study of Evaluation. This list was checked for consistency with the General Goals of Education in Florida by the Department of Education. Florida's 67 school superintendents nominated 112 reading specialists and 236 classroom teachers to select from this list. Department of Education specialists made the final selection of "high priority" objectives.
Related Materials:	None

Ordering Information: This document is available (Order No. ED 071 054) from:

ERIC Document and Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Cost: $.83 (microfiche), $1.67 (hardcopy)
Plus postage

Title: IOX Measurable Objectives Collections

Descriptor: A collection of 52 sets of content-general objectives with accompanying sample test items for all areas of schooling

Originator: Instructional Objectives Exchange (IOX) was established in 1968 by the UCLA Center for the Study of Evaluation (CSE). Sets of objectives have been developed continuously since 1968.

Intended Users: The collections are designed for use by individual teachers or districts seeking to specify the outcomes for instruction.

Purpose/ Content: Each set includes objectives collections for an area of the curriculum. There are also collections of objectives dealing with the specification of attitudes, values and judgments. IOX states that its purpose is to provide a valuable service to the educational community.

Usefulness Related to CBE: The IOX collections present a timesaving alternative to the specification of objectives for a single course of instruction or for a comprehensive program. Since many of the objectives collections have been extensively reviewed and revised, it should be possible for a user to formulate an entire set of objectives with minor revisions and additions. The user of the collections has the benefit of the thinking of many others in the field, including subject matter experts.

History of Development: The staff of the Exchange collected objectives from a number of sources in an effort to provide its users with lists from which to select. Each user may need to generate additional objectives in accord with individual curricular goals. The following statement appears in the introduction of the collection.

Quality Control: Collections put out by the Exchange undergo a continual process of evaluation and revision during developmental stages. Procedures generally undertaken are:

1. At least one subject matter evaluation by an expert in the field
2. Evaluation by educational evaluators
3. Evaluation by teachers in the grade levels concerned

History of Development: (Continued)

The collections that contain complete measures are field tested for purposes of development prior to publication. Periodic revisions of the collections involve complete reviews and changes in the following possible areas:

a. Addition of new objectives
b. Rewording of inappropriate or unsuccessful objectives
c. Restructuring or reordering of the Collection
d. The incorporation of areas reflecting new developments in the field or in teaching approaches

Related Materials:

- An Evaluation Guidebook--A Set of Practical Guidelines for the Educational Evaluator (See page 455)
- Priorities Planning: Judging the Importance of Individual Objectives (See page 341)
- Determining Test Length: Passing Scores and Test Lengths for Objectives-Based Tests (See page 453)
- Considerations in Selecting and Using Instructional Objectives (See page 339)
- IOX Objectives-Based Test Collections (See page 381)

Ordering Information:

Write: Instructional Objectives Exchange
P.O. Box 24095
Los Angeles, California 90024
(Delivery is very prompt)

Cost: Individual collections of objectives are $8.00 each plus 3% for postage and handling.

Order objectives collections by title and collection number.

A sample packet entitled IOX Objectives-Based Test and a brochure listing all available products may be obtained upon request.

The following pages include descriptions of the individual sets of objectives described.

Title:	Language Arts: Decoding Skills K-12 (No. 1R)
Descriptor:	A collection of 118 content-general objectives with five sample test items per objective
Publication Date(s):	1972 (Revised Edition), 142 pp.
Originator:	Instructional Objectives Exchange (IOX)
Intended Users:	Teachers or curriculum designers wishing to specify decoding skills
Purpose/ Content:	The 118 objectives are arranged into five categories: 1. Discrimination--diagnosis and mastery of discriminatory skills prerequisite to reading 2. Sight Vocabulary--student's gradual accumulation of a 250 word basic sight list 3. Recognition of Letters by Name--student's ability to recognize printed and script letters 4. Recognition of Sounds and Their Association with Letters--association of long vowels, short vowels and single consonant sounds with their letters 5. Pronunciation of Letter Combinations and Words--pronunciations of vowel, consonant and vowel-consonant combinations in context. (There are two proficiency levels defined, third grade and city newspaper.)
Usefulness Related to CBE:	Users may select objectives from the collection that are appropriate to stated goals. Since the objectives are "content-general," it will be easy to adapt them to available instructional materials.
History of Development:	This collection was revised under the direction of Nola Paxton. Diane Narikawa and John Reich provided reviews of the material. Professor Earl Rand, Department of English, UCLA, served as subject matter expert for external review.
Related Materials:	See page 154
Ordering Information:	See page 154

Title:	Language Arts: Listening, Oral Expression, and Journalism K-12 (No. 6R)
Descriptor:	A collection of 100 content-general objectives with at least one sample test item per objective
Publication Date(s):	1972 (Revised Edition), 160 pp.
Originator:	Instructional Objectives Exchange (IOX)
Intended Users:	Teachers or curriculum designers wishing to specify skills in the areas of listening, oral expression and journalism
Purpose/ Content:	The list of 100 objectives is comprised of three sections. Section I, Listening, contains 31 objectives. These are divided into three major categories: affective listening, comprehension and interpretation, and analytical listening. The last 18 objectives require a student response in which there are no right or wrong answers. Several objectives require application of a particular concept to a given oral communication. Section II, Oral Expression, contains 50 objectives. These are primarily oral behaviors employed by English teachers. Each oral task is accompanied by a written task. Section III, Journalism, contains 19 objectives. They are organized as follows: journalistic techniques and journalistic forms. This collection covers forms and concepts basic to newspaper coverage; magazines and television news are excluded.
Usefulness Related to CBE:	Users may select objectives from the collection that are appropriate to stated goals. Since the objectives are "content-general," it will be easy to adapt them to available instructional materials.
History of Development:	The collection was revised under the direction of Jeanne Potter and John Reich. Elizabeth Buck, Kathy Mullins, Linda Paulson and Nola Paxton provided reviews of the material at various stages of development.
Related Materials:	See page 154
Ordering Information:	See page 154

Title:	Language Arts: Comprehension Skills K-12 (No. 2R)
Descriptor:	A collection of 91 content-general objectives with at least one sample test item per objective
Publication Date(s):	1972 (Revised Edition), 107 pp.
Originator:	Instructional Objectives Exchange (IOX)
Intended Users:	Teachers or curriculum designers wishing to specify comprehension skills
Purpose/ Content:	The 91 objectives are organized into four sections: (1) Literal Comprehension, (2) Interpretation, (3) Vocabulary and Word Meaning and (4) Comprehension of Non-Written Materials. Each objective includes at least one item for measurement. Where more than one item would be of use to the teacher, more evaluation items have been provided. Since the objectives are content-general, the teacher may either select item content from textbooks or write items modeled after the sample items. In cases where constructed responses are required, criteria for judging the adequacy of the responses are provided. The teacher may substitute material that is appropriate for a particular student group and evaluate it based upon the criteria specified in the objective.
Usefulness Related to CBE:	Users may select objectives from the collection that are appropriate to stated goals. Since the objectives are "content-general," it will be easy to adapt them to available instructional materials.
History of Development:	Professor Earl Rand, Department of English, UCLA, has provided a complete survey of the contents. Revision of this collection was directed by Nola Paxton.
Related Materials:	See page 154
Ordering Information:	See page 154

Title: Language Arts: Composition Skills K-12 (No. 4R)

Descriptor: A collection of 171 content-general objectives with at least one sample test item per objective

Publication Date(s): 1972 (Revised Edition), 241 pp.

Originator: Instructional Objectives Exchange (IOX)

Intended Users: Teachers or curriculum designers wishing to specify composition skills

Purpose/ Content: There are two sections of this collection. Section I, Basic Composition, contains 127 objectives. These include skills taught in early intermediate grades as well as late secondary grades. The objectives in this section are arranged in five categories:

1. Story Writing: Fanciful and Realistic--Students identify and write in certain literary forms and genres.
2. Letters: Business and Social--Students identify the main constituents of letter types and follow specifications.
3. Figurative and Descriptive Language--Students identify and produce examples of descriptive and sensory language, personification, metaphor, simile, alliteration and onomatopoeia.
4. Poetry Skills--Students identify, analyze and produce various common metrical patterns and rhyme schemes.
5. Poetry Writing--Students write types of poems most frequently taught, e.g., couplet, limerick, narrative, lyric, etc.

Section II, Paragraph Form and Development, contains 44 objectives. These objectives are divided into six categories:

1. Expository Paragraph Form--main elements of the paragraph: topic sentence, development, direct and indirect sentence links
2. General Expository Methods of Paragraph Development--recognition, how and when to write paragraphs, e.g., identification, classification, cause and effect, definition
3. Narrative Development--understands chronology as distinguished from summarized and dramatized narrative

Purpose/ Content: (Continued)	4. Descriptive Development--writes concrete, sensory details in a spatial order; uses transitional words of spatial movement and writes from a specific and objective authorial stance; begins and concludes with a general impression 5. Discursive Development--deals with inductive and deductive organization of expository paragraphs 6. Generative Development--deals with coordination and subordination as described by Francis Christensen in Notes Toward a New Rhetoric: Six Essays for Teachers
Usefulness Related to CBE:	Users may select objectives from the collection that are appropriate to stated goals. Since the objectives are "content-general," it should be easy to adapt them to available instructional materials.
History of Development:	This collection was revised under the direction of Sharyn Frankel and Nola Paxton. Elizabeth Buck and Kathy Mullins provided staff reviews. Professor Earl Rand, Department of English, UCLA, served as subject expert for external review. Thomas Gripp and Anne Marie Thames contributed objectives and items as well as adaptations from their publication, Programmed Approach to the Composition of Essay.
Related Materials:	See page 154
Ordering Information:	See page 154

Title:	Music K-6 (No. 31)
Descriptor:	A collection of 97 objectives, including measurement items for judging the adequacy of student responses
Publication Date(s):	1970, 101 pp.
Originator:	Instructional Objectives Exchange (IOX)
Intended Users:	Teachers or curriculum designers wishing to specify major concepts, fundamentals and applications in music appreciation at grade levels K-6
Purpose/ Content:	The objectives are organized into the following categories: Melody, Harmony, Musical Form (design), Musical Sound, Musical Style, Rhythm Performance Skills and Band Instruments. Objectives in each category are arranged in ascending grade levels. Objectives are stated in operations terms, and each category is further broken down into subcategories in order to be more definitive. There are several degrees of behavior required, ranging from simple recall of knowledge to the analysis of given situations. Most of the time, specific answers to the sample test items are provided; however, some contain references and directions to answers. Directions for the items are always written as they would be for students.
Usefulness Related to CBE:	Users may select objectives from the collection that are appropriate to stated goals. Since the objectives are "content-general," it should be easy to adapt them to available instructional materials.
History of Development:	Portions of the material are based upon contributions made by the following school districts: • Clark County School District, Las Vegas, Nevada • John H. Glenn Junior High School, San Angelo, Texas • Thurston Intermediate School, Laguna Beach, California • Seneca Highlands Humanities Project, McKean, Elk and Potter Counties, North Central, Pennsylvania • Research and Development Center in Educational Simulation, University of Georgia, Athens, Georgia Miss Frances Cole of El Monte School District in El Monte, California, added to and refined the material. Estelle Shane, Coordinator of Product Development for the Project for Research on Objective Based Evaluation,

History of Development: (Continued)	performed the final revision and organization of the material for inclusion in the collection.
Related Materials:	See page 154
Ordering Information:	See page 154

Title: Attitudes Related to Tolerance 9-12 (No. 36)

Descriptor: A collection of 13 affective objectives and measuring devices to assess secondary students' tolerance of other secondary students' values and opinions

Publication Date(s): 1971, 114 pp.

Originator: Instructional Objectives Exchange (IOX)

Intended Users: Teachers or curriculum designers wishing to specify affective objectives and measures for purposes of group assessment

Purpose/ Content: The developers stress at the outset that "measuring instruments provided here are not to be considered as 'measures of tolerance' but rather as 'measures of objectives' which have been judged to be related to the notion of tolerance."

Some problems related to assessing tolerance attitudes are discussed. First is the different meanings people attach to the term tolerance. Second is the degree of tolerance assessed by the measurement.

The list of measurement techniques can be classified into three general categories: paper-and-pencil instruments, sociometric techniques and observational measures. There are two types of paper-and-pencil instruments. One instrument gathers a student's "direct self-report" of attitude, and the other requires some interpretation of the response. Sociometric devices measure peer ratings and provide data for analysis of intergroup and interpersonal relations. Observation techniques involve an outsider or informal teacher observation, depending on the local situation.

Usefuless Related to CBE: Provides a wide variety of objectives from which users may select according to local needs. Users of material in this collection should be aware of local values and attitudes.

History of Development:

The project began with a literature search of the following topics: prejudice, interpersonal relations, intergroup (especially interracial) relations and the measurement of attitudes and values in general.

Each of the objectives in the collection provides a basis upon which the rationale was developed.

The developers describe this further by stating that "heavy emphasis was placed on certifying the congruence of the objectives to the 'tolerance' construct as well as the congruence of the measurement techniques, and even of individual items, to their related objectives." Reviewers have been selected from several disciplines at the university level, and teachers, administrators and students at the high school level also served as reviewers.

Approximately 30 students completed each paper-and-pencil instrument. The schools chosen for field testing were made up of a racial or ethnic mix. All items have been "systematically revised" based on data collected from this field test. Plans are being made for further field testing.

Related Materials: See page 154

Ordering Information: See page 154

Title: Attitude Toward School K-12 (No. 35R)

Descriptor: A collection of 42 affective objectives and related measurement instruments to be used in group assessment

Publication Date(s): 1972 (Revised Edition), 183 pp.

Originator: Instructional Objectives Exchange (IOX)

Intended Users: Teachers or curriculum designers wishing to specify affective objectives and measures development for purposes of group assessment

Purpose/Content: The 42 objectives are listed in three sections: Primary (11), Intermediate (15) and Secondary (16). Within each section there are basically two types of measures. Self-Report measures are comprised of two types: (a) direct--learner's opinions gathered through question-answer fashion and (b) inferential--learner's attitudes and interests gathered through "more oblique stimuli." Direct self-report measures were prepared so that a number of dimensions of the learner's attitude toward schooling were addressed. These dimensions include teachers, school subjects, learning, social structure and climate, peer and general. Observational indicators vary considerably in the degree of what can be inferred from the response.

Usefulness Related to CBE: Users may select objectives from the collection that are appropriate for the local situation. Sensitive judgment should be employed in implementing all or parts of this material with respect to community attitudes and feelings.

History of Development: Development of the original version of self-concept measures was supported by Title III programs in 18 states. These states collectively supported a developmental project by IOX who in turn produced objectives and measures in specific affective areas. The next step involved a literature search of relevant sources on self-concept and consultation with appropriate educators. Measures were developed and field tested.

History of Development: (Continued)

The revision of these measures focused upon two major areas of concern: (1) involving more pupils in the development trials and (2) including a larger and more representative student population.

The first step was to expand the total number of objectives and develop a systematic data-based revision of all measures currently in the collection, judging each measure's relevance to the objective in question.

Data gathered from approximately 1,000 pupils in Southern California school districts provided bases for the judgments. Many items were deleted or modified, and four new inferential measures were devised. With the cooperation of the Culver City Unified School District and the Marina Del Rey Junior High School of Los Angeles Schools, there was good representation of pupil socioeconomic status--five were considered low, five were middle, and one was high.

Three questions were formulated based on field test data:

1. Were the several direct self-report subscales and inferential self-report measures which ostensibly measured the same or similar constructs actually related?
2. Were the items in a given measure performing their assessment job homogeneously, that is, were they behaving in about the same way with respect to the measurement of pupil behavior?
3. Were the measures reliable in the sense of yielding a relatively stable index over time?

To answer these questions, a five-step analysis was conducted. In the first step, one of the measures was eliminated because of a lack of relationship to comparable measures. An item homogeneity index was employed in the second step to determine the relationship of individual items within each group of supposedly related items. In the third step an item stability index was used to calculate the reliability of particular items. The fourth step involved a survey according to these indices, and items were deleted which did not operate as specified. The Kuder-Richardson analysis was applied to the scores after the items were excluded.

Related Materials: See page 154

Ordering Information: See page 154

Title:	Judgment: Analyzing Fallacies and Weaknesses in Arguments 7-12 (No. 50)
Descriptor:	A collection of 34 content-general objectives describing types of fallacious arguments and sample items for purposes of identification
Publication Date(s):	1974, 111 pp.
Originator:	Instructional Objectives Exchange (IOX)
Intended Users:	Teachers and curriculum designers who wish to specify affective objectives for purposes of group assessment
Purpose/ Content:	Objectives in this collection are listed, followed by an explanation of the fallacy to be examined. Sample items which illustrate the explanation are included, and the comments which follow provide answers. The items are varied depending on age of users, which ranged from upper elementary school through high school. The fallacies are categorized as three different types: fallacies of relevance, fallacies of insufficient evidence and fallacies of ambiguity. Measures for each of the categories are provided, as well as pretests, posttests and comprehensive tests. Developers claim that this logical tool is taught the same as any other skill. Each fallacy is explained alone, then a variety of examples is applied, and finally the fallacy is used in studying different disciplines.
Usefulness Related to CBE:	This set of objectives is new to the traditional elementary and secondary curricula. A wide variety of objectives is provided for users to select from based on existing curricular goals.
History of Development:	The objectives and measures in this collection were developed under the direction of Richard Morrow. Reviews of the material were provided at different stages of development by several IOX staff. Michael Harriman, University of Western Australia, also provided extensive review of the collection.

History of Development: (Continued)	As with other IOX collections, a continual process of evaluation and revision is ongoing. This is the same process of quality control as described for IOX Measurable Objectives Collections.
Related Materials:	Four textbooks which can serve as sources of arguments and information about fallacies are: ● Introduction to Logic, Irving M. Copi ● Elements of Logic and Formal Science, C. West Churchman ● Guides to Straight Thinking, Stuart Chase ● Fundamentals of Logic, James D. Carney and Richard K. Scheen
Ordering Information:	See page 154

Title: Judgment: Deductive Logic and Assumptive Recognition 7-12 (No. 37)

Descriptor: A collection of seven affective objectives and related measuring devices to assess students' ability to exercise critical judgment

Publication Date(s): 1971, 68 pp.

Originator: Instructional Objectives Exchange (IOX)

Intended Users: Teachers and curriculum designers wishing to specify affective objectives for purposes of group assessment

Purpose/ Content: This collection is one of a series developed to measure various aspects of the cognitive skill, judgment.

Skills of logical analysis are presented first, because the developers felt these are prerequisite behaviors. They point out that interpretation of scores should be directly related to the student's ability to make logical judgments.

Objectives 1 and 2 are measured by the Conditional Reasoning Index, i.e., "if-then" statements. Objectives 3 and 4 are measured by the Class Reasoning Index, i.e., "all, none, some" statements. Objectives 5 and 6 deal with assumption recognition in which two indices are used: one consisting of brief statements followed by proposed assumptions, the other having a several sentence argument with a list of suggested assumptions. Objective 7, Recognizing Reliable Observations, is its own measure. Students must judge the source of information.

Usefulness Related to CBE: This collection provides a wide variety of objectives from which users may select based on existing curricular goals.

History of Development: This is still another of the collection supported by several Title III programs. This is the first effort given to assessment of exercising critical judgment.

History of Development: (Continued)	The measures in this collection were developed by Edith Shaffer and JoAnn Steiger. Gary D. Fenstermacher, Assistant Professor, Graduate School of Education, UCLA, served as subject matter specialist providing critical reviews and suggestions. Cornelius Troost, Assistant Professor, Graduate School of Education, UCLA, also provided reviews. As with other IOX collections, a continual process of evaluation and revision is ongoing. This is the same process of quality control as described for IOX Measurable Objectives Collections.
Related Materials:	See page 154
Ordering Information:	See page 154

Title: Knowledge and Attitudes of Drug Usage 4-12 (No. 41)

Descriptor: A collection of 24 objectives, including cognitive and affective measures for use in developing effective drug education programs

Publication Date(s): 1973, 101 pp.

Originator: Instructional Objectives Exchange (IOX)

Intended Users: Teachers or curriculum designers who wish to specify objectives relating to the understanding of, as well as views on, drug usage

Purpose/ Content: An attempt was made to develop measures from which users could choose based upon relevance to the given community.

Measures are provided for upper elementary school students (grades 4-6) and secondary school students (grades 7-12). The measures are grouped as follows: knowledge measures which show what the students know; direct report measures asking the student's reaction to drug use and specific cases of use; an indirect measure indicating the student's tendency toward drug use; an archival measure which notes referrals to public agencies; observation instrument recording suspected drug related symptoms in students; finally, a planning information measure asking students to rate sources of drug information.

Usefulness Related to CBE: A wide variety of objectives is provided for users to select from based on existing curricular goals and local situations.

History of Development: Research studies from the National Clearinghouse on Drug Abuse were examined to identify those measures to which experts in the field give priority. Drug information sources helped in developing items relating to knowledge of drug use, and existing drug curricula in school districts were investigated. In an attempt to secure content validity of each measure a neuropsychiatrist was consulted.

History of Development: (Continued)	Field testing has been done with a small sampling of students to determine time requisites and identify language ambiguities. A few revisions were made as necessary. Further field testing is being planned.
Related Materials:	See page 154
Ordering Information:	See page 154

Title: Measures of Self-Concept K-12 (No. 34R)

Descriptor: A collection of 30 affective objectives and related measurement instruments to be used in group assessment

Publication Date(s): 1972 (Revised Edition), 132 pp.

Originator: Instructional Objectives Exchange (IOX)

Intended Users: Teachers or curriculum designers who wish to specify affective objectives and measures development for purposes of group assessment

Purpose/ Content: The measures in this collection are of two types: The Self-Report devices are classified according to whether they are direct or inferential measures. The developers point out that "direct self-report measures solicit the learner's opinions in a straightforward, question-answer fashion." This type of measure is considered to have high content validity. They state further that "inferential self-report measures are devised so that their chief purpose is camouflaged." Observational indicators are the second device used. They will vary from one measure to another depending on how closely they relate to the affective domain.

The developers state that four different dimensions of the learner's self-concept should be reflected through these measures. They are: (1) family--self-esteem through family relationships, (2) peer--self-esteem through peer relationships, (3) scholastic--self-esteem through scholastic endeavors and (4) general--comprehensive estimate of self-esteem. Direct self-report measures include items from each of the four dimensions while inferential measures center upon one of the four dimensions.

Usefulness Related to CBE: Users may select objectives that are appropriate for the local situation. Sensitivity to community attitudes and feelings should be employed in implementing all or parts of this material.

History of Development:

Development of the original version of self-concept measures was supported by Title III programs in 18 states. These states collectively supported a developmental project by IOX who in turn produced objectives and measures in specific affective areas. The next step involved a literature search of relevant sources on self-concept and consultation with appropriate educators. Measures were developed and field tested.

The revision of these measures focused upon two major areas of concern: (1) involving more pupils in the development trials and (2) including a larger and more representative student population.

The first step was to expand the total number of objectives and develop a systematic data-based revision of all measures currently in the collection. An estimate was made of each item in the collection, judging its relevance to the objective in question.

Data gathered from approximately 1,000 pupils in southern California school districts provided bases for the judgments. Many items were deleted or modified, and four new inferential measures were devised. With the cooperation of the Culver City Unified School District and the Marina Del Rey Union High School of Los Angeles Schools, there was good representation of pupil socioeconomic status--five were considered low, five were middle, and one was high.

Three questions were formulated based on field test data:

1. Were the several direct self-report subscales and inferential self-report measures which ostensibly measured the same or similar constructs actually related?
2. Were the items in a given measure performing their assessment job homogeneously, that is, were they behaving at about the same way with respect to the measurement of pupil behavior?
3. Were the measures reliable in the sense of yielding a relatively stable index over time?

To answer these questions, a five-step analysis was conducted. In the first step, one of the measures was eliminated because of a lack of relationship to comparable measures. An item homogeneity index was employed in the second step to determine the

History of Development: (Continued) relationship of individual items within each group of supposedly related items. In the third step an item stability index was used to calculate the reliability of particular items. The fourth step involved a survey according to these indices, and items were deleted which did not operate as specified. The Kuder-Richardson analysis was applied to the scores after the items were excluded.

Related Materials: See page 154

Ordering Information: See page 154

Title: Behavioral Objectives--Test Item Bank

Descriptor: A collection of objectives and related test items covering four subject areas in each of four grade levels

Originator: Marcus Lieberman, Project Director, et al., Evaluation for Individualized Instruction Project, a Title III ESEA Project administered by Downers Grove (Illinois) Public School District 99

Intended Users: School administrators involved in curriculum development and program evaluation and teachers who need to specify and evaluate goals of instructional programs

Purpose/ Content: For both groups it will provide the basis for planning an individualized instructional program.

Approximately 5,000 behavioral objectives and more than 27,000 related test items have been written. The subject areas covered are: language arts, mathematics, social science and science. Each of these subjects is treated at four levels--primary, intermediate, junior high and high school. The entire collection includes 17 volumes totalling 4,500 pages.

Each test item is directly tied to a specifically stated objective, providing accurate assessment of the program's success.

With the current mass movement toward CBE in curriculum development, such a work is intended to avoid duplication of effort in school district planning.

Usefulness Related to CBE: There are two potential contributions which the Behavioral Objectives--Test Item Bank can make to any school district attempting to establish individualized instruction programs. First is a comprehensive list of behavioral objectives specifying what should be included in programs. Second is a set of test items which measures the degree of attainment of these objectives.

History of Development:	In the three years of development there were several three-to-nine-week workshops conducted. Objectives and test items were written in these workshops by more than 300 elementary and secondary teachers from 40 school districts in the Chicago area. The goal of the workshops was to teach teachers how to write effective behavioral objectives and test items based on the objectives. The product of their writing has been edited for content and measurement.
Related Materials:	None
Ordering Information:	Write: Institute for Educational Research 1400 W. Maple Avenue Downers Grove, Illinois 60515 (312) 971-2040 The cost of individual sets of objectives is included with each description.

The following pages include descriptions of the individual sets of objectives described.

Title: Primary Language Arts

Descriptor: A collection of approximately 489 behavioral objectives with 3,635 related test items for primary language arts instruction

Publication Date(s): 1972, 375 pp.

Originator: Marcus Lieberman, Project Director, et al.

Intended Users/ Purpose/ Content: This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: grammar and usage, phonics, mechanics, alphabet, reference, vocabulary, reading skills, critical thinking and creative writing through literature.

The collection is indexed to provide some specific subject access to the objectives.

Usefulness Related to CBE: See page 179

History of Development: See page 180

Related Materials: None

Ordering Information: See page 180

Cost: $13.00

This document is also available (Order No. ED 066 498) from:

ERIC Document and Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Cost: Current price information is available in the latest issue of Resources in Education.

Title: Primary Mathematics

Descriptor: A collection of 80 behavioral objectives with 574 related test items for primary mathematics instruction

Publication Date(s): 1972, 165 pp.

Originator: Marcus Lieberman, Project Director, et al.

Intended Users/ Purpose/ Content: This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: numbers and numeration, fractions, mathematical symbols, addition and subtraction of whole numbers, multiplication and division of whole numbers, measurement, bills and coins, geometry and sets.

The collection is indexed to provide some specific subject access to the objectives.

Usefulness Related to CBE: See page 179

History of Development: See page 180

Related Materials: None

Ordering Information: See page 180

Cost: $6.00

This document is also available (Order No. ED 066 494) from:

ERIC Document and Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Cost: Current price information is available in the latest issue of Resources in Education.

Title: Primary Social Studies

Descriptor: A collection of 50 behavioral objectives and 334 related test items for primary social studies instruction

Publication Date(s): 1972, 37 pp.

Originator: Marcus Lieberman, Project Director, et al.

Intended Users/ Purpose/ Content: This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: social studies terminology, map reading, principles of geography, living in communities and safety rules.

The collection is indexed to provide some specific subject access to the objectives.

Usefulness Related to CBE: See page 179

History of Development: See page 180

Related Materials: None

Ordering Information: See page 180

Cost: $4.00

This document is also available (Order No. ED 066 503) from:

ERIC Document and Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Cost: Current price information is available in the latest issue of _Resources in Education_.

Title:	Primary Science
Descriptor:	A collection of 89 behavioral objectives with 389 related test items for primary science instruction
Publication Date(s):	1972, 51 pp.
Originator:	Marcus Lieberman, Project Director, et al.
Intended Users/ Purpose/ Content:	This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: digestive system, circulatory system, skin and senses system, brain and nervous system, respiratory system, skeletal system, characteristics of animals, plants, earth science, weather, and mechanics and heat. The collection is indexed to provide some specific subject access to the objectives.
Usefulness Related to CBE:	See page 179
History of Development:	See page 180
Related Materials:	None
Ordering Information:	See page 180 Cost: $3.75 This document is also available (Order No. ED 066 505) from: ERIC Document and Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: Current price information is available in the latest issue of Resources in Education.

Title:	Intermediate Language Arts
Descriptor:	A collection of 202 behavioral objectives with 2,349 related test items for intermediate language arts instruction
Publication Date(s):	1971, 226 pp.
Originator:	Marcus Lieberman, Project Director, et al.
Intended Users/ Purpose/ Content:	This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: communications, critical thinking, etiquette, literature, word study and reference. The collection is indexed to provide some specific subject access to the objectives.
Usefulness Related to CBE:	See page 179
History of Development:	See page 180
Related Materials:	None
Ordering Information:	See page 180 Cost: $10.50 This document is also available (Order No. ED 066 499) from: ERIC Document and Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: Current price information is available in the latest issue of Resources in Education.

Title:	Intermediate Mathematics
Descriptor:	A collection of 279 behavioral objectives with 2,675 related test items for intermediate mathematics instruction
Publication Date(s):	No date given, 578 pp.
Originator:	Marcus Lieberman, Project Director, et al.
Intended Users/ Purpose/ Content:	This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: numbers and numeration, place holders and value, expanded notation, rounding, number line, inequalities, exponential notation, fractions, decimals, bases, Roman numerals, primes and factors, whole number addition, subtraction, multiplication and division, simplification of fractions, addition, subtraction and multiplication of fractions, addition of decimals, percents, arithmetic applications, measurement, maps, bills and coins, statistics, finite and infinite, properties, rational-irrational, sets, subsets and supersets, operations, Venn diagrams, logarithms and exponentials, graphing, functions and inferences. The collection is indexed to provide some specific subject access to the objectives.
Usefulness Related to CBE:	See page 179
History of Development:	See page 180
Related Materials:	None
Ordering Information:	See page 180 Cost: $17.00

Ordering Information: (Continued)

This document is also available (Order No. ED 066 495) from:

ERIC Document and Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Cost: Current price information is available in the latest issue of Resources in Education.

Title:	Intermediate Social Studies
Descriptor:	A collection of 300 behavioral objectives with 2,792 related test items for intermediate social studies instruction
Publication Date(s):	1971, 291 pp.
Originator:	Marcus Lieberman, Project Director, et al.
Intended Users/ Purpose/ Content:	This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: general social science procedures and processes (terminology), map reading (critical thinking), geography (general principles and countries), history (early man, ancient civilizations and Middle Ages) and American history (Indians, early explorations, colonization of the U.S., U.S. Constitution, Monroe Doctrine, the War Between the States, immigration and World War I). The collection is indexed to provide some specific subject access to the objectives.
Usefulness Related to CBE:	See page 179
History of Development:	See page 180
Related Materials:	None
Ordering Information:	See page 180 Cost: $10.50 This document is also available (Order No. ED 066 504) from: ERIC Document and Reproduction Service P.O. Box 190 Arlington, Virginia 22210

Ordering Information: (Continued)	Cost:	Current price information is available in the latest issue of Resources in Education.

Title: Intermediate Science

Descriptor: A collection of 229 behavioral objectives with 1,078 related test items for intermediate science instruction

Publication Date(s): 1972, 143 pp.

Originator: Marcus Lieberman, Project Director, et al.

Intended Users/ Purpose/ Content: This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: characteristics of body systems (skeletal system, reproduction, health, digestive system, senses, respiratory system, circulatory system and nervous system), characteristics of animals (insects), characteristics of plants, nature of matter, color, earth science, oceanography, weather, machines, electricity, planets and space travel, mechanics and heat, light, critical thinking and measurement.

The collection is indexed to provide some specific subject access to the objectives.

Usefulness Related to CBE: See page 179

History of Development: See page 180

Related Materials: None

Ordering Information: See page 180

Cost: $7.50

This document is also available (Order No. ED 066 506) from:

ERIC Document and Reproduction service
P.O. Box 190
Arlington, Virginia 22210

Ordering Information: (Continued)	Cost:	Current price information is available in the latest issue of *Resources in Education*.

Title:	Junior High Language Arts
Descriptor:	A collection of 217 behavioral objectives with 2,701 related test items for junior high language arts instruction
Publication Date(s):	1972, 285 pp.
Originator:	Marcus Lieberman, Project Director, et al.
Intended Users/ Purpose/ Content:	This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: communications, critical thinking, etiquette, grammar, history of language, literature, mechanics and use of references. The collection is indexed to provide some specific subject access to the objectives.
Usefulness Related to CBE:	See page 179
History of Development:	See page 180
Related Materials:	None
Ordering Information:	See page 180 Cost: $10.50 This document is also available (Order No. ED 066 500) from: ERIC Document and Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: Current price information is available in the latest issue of Resources in Education.

Title:	Junior High Mathematics
Descriptor:	A collection of 260 behavioral objectives with 681 related test items for junior high mathematics instruction
Publication Date(s):	No date given, 227 pp.
Originator:	Marcus Lieberman, Project Director, et al.
Intended Users/ Purpose/ Content:	This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: definitions and rules, sets, numbers, arithmetic operations, modular arithmetic and bases, fractions, decimals and proportions, word problems, simplification and substitution, equations, measurement, polygons, graphs and charts, sequences, angles and trigonometry, probability, combinations and permutations, and spatial perception. The collection is indexed to provide some specific subject access to the objectives.
Usefulness Related to CBE:	See page 179
History of Development:	See page 180
Related Materials:	None
Ordering Information:	See page 180 Cost: $9.50 This document is also available (Order No. ED 066 496) from: ERIC Document and Reproduction Service P.O. Box 190 Arlington, Virginia 22210

Ordering Information: (Continued)	Cost: Current price information is available in the latest issue of Resources in Education.

Title:	Junior High Science
Descriptor:	A collection of 152 behavioral objectives with 1,153 related test items for junior high science instruction
Publication Date(s):	1972, 152 pp.
Originator:	Marcus Lieberman, Project Director, et al.
Intended Users/ Purpose/ Content:	This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: respiratory system, circulatory system, excretory system, digestive system, animal cells, nervous system, skeletal system, geology, oceanography, laws of motion, space travel, weather, matter, energy, measurement, tools and techniques, and critical thinking. The collection is indexed to provide some specific subject access to the objectives.
Usefulness Related to CBE:	See page 179
History of Development:	See page 180
Related Materials:	None
Ordering Information:	See page 180 Cost: $7.50 This document is also available (Order No. ED 066 507) from: ERIC Document and Reproduction Service P.O. Box 190 Arlington, Virginia 22210

Ordering Information: (Continued)

Cost: Current price information is available in the latest issue of *Resources in Education*.

Title: High School Language Arts

Descriptor: A collection of 571 behavioral objectives with 2,188 related test items for high school language arts instruction

Publication Date(s): 1972, 347 pp.

Originator: Marcus Lieberman, Project Director, et al.

Intended Users/ Purpose/ Content: This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: literary periods, literary techniques and devices, literary works and authors, critical thinking, rhetoric, reference, grammar, mechanics and letters.

The collection is indexed to provide some specific subject access to the objectives.

Usefulness Related to CBE: See page 179

History of Development: See page 180

Related Materials: None

Ordering Information: See page 180

Cost: $12.00

This document is also available (Order No. ED 066 501) from:

ERIC Document and Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Cost: Current price information is available in the latest issue of Resources in Education.

Title: High School Mathematics

Descriptor: A collection of 717 behavioral objectives with 2,767 related test items for high school mathematics instruction

Publication Date(s): 1972, 802 pp.

Originator: Marcus Lieberman, Project Director, et al.

Intended Users/ Purpose/ Content: This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: angles, computers and data processing, conics, construction, definitions, distance formulas, equations, exponents, fractions, decimals and proportions, functions and relations, graphing, inequalities, measurement, numbers, points, lines and planes, polygons, polynomials, primes and factors, probability, combinations and permutations, radicals, proofs, logic, theorems and axioms, sequences, progression and series, sets, simplifications, slope-intercept, trigonometry, vectors and word problems.

The collection is indexed to provide some specific subject access to the objectives.

Usefulness Related to CBE: See page 179

History of Development: See page 180

Related Materials: None

Ordering Information: See page 180

Cost: $20.25

Ordering Information: (Continued)	This document is also available (Order No. ED 066 497) from: ERIC Document and Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: Current price information is available in the latest issue of Resources in Education.

Title: High School Science

Descriptor: A collection of 297 behavioral objectives with 855 related test items for high school science instruction

Publication Date(s): 1972, 305 pp.

Originator: Marcus Lieberman, Project Director, et al.

Intended Users/ Purpose/ Content: This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down under the two major areas of life science and physical science, as follows: (1) Physical Science--measurement, models and problem solving, charts and graphs, mechanics, energy, atomic structure, heat, waves, light, electricity and magnetism, gases, moles, structures, formulas and bonding, solutions and solubility, acids and bases, equations and equilibrium, oxidation-reduction, reactions and rates, electrolysis, electro-chemical cell and qualitative analysis; (2) Life Science--capillarity, diffusion and osmosis, electron transport system, enzymes, genetics, organic compounds, microscope, photosynthesis, plant function and structure, plasmolysis, problem solving, reproduction and drugs.

The collection is indexed to provide some specific subject access to the objectives.

Usefulness Related to CBE: See page 179

History of Development: See page 180

Related Materials: None

Ordering Information: See page 180

Cost: $12.00

Ordering Information: (Continued)

This document is also available (Order No. ED 066 508) from:

ERIC Document and Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Cost: Current price information is available in the latest issue of Resources in Education.

Title: Sourcebook of Training Products in Instructional Planning and Management

Descriptor: A source of information about training systems for instructional planning and management

Publication Date(s): 1975, 93 pp.

Originator: Nancy McCutchan, Rita Fernandez and Jean Coleman, Far West Laboratory for Educational Research and Development (FWL)

Intended Users: The authors of this Sourcebook write that it "is designed for all who have a stake in selecting and conducting instructional planning and management training activities--teachers, department heads, principals, curriculum specialists, assistant superintendents, superintendents at preschool, elementary, and secondary school levels."

Purpose/ Content: This Sourcebook is designed to help users answer various questions about instructional planning and management training systems. Some questions the product was designed to help answer are: "What is instructional planning and management? What training programs and resources are available to develop staff in these areas? What are the major characteristics of the available products? Which ones seem best suited to local training needs?"

The Sourcebook has three major sections. "Orientation," the first section, describes instructional planning and management, based on the experience and research of the Far West Laboratory. This section also suggests guidelines to help the user review and select training materials.

In the second section, "Program Reports," 15 program packages designed to meet specific staff development or training needs are presented.

"Training Resources," the third section, is an annotated list of supplementary materials to complement or enrich an instructional planning and management training system.

Purpose/ Content: (Continued)

The descriptions of training programs focus on the following categories:

- Content focus
- Type of product
- Availability
- Developer
- Distributor
- Target audience
- Goals and objectives
- Materials and equipment
- How to use
- Trainee assessment
- Product development and evaluation
- Cost
- Comment

Usefulness Related to CBE:

Several of the products described in this collection appear to have potential for training staff to be effective in a CBE context. The Sourcebook thus appears to be a useful source from which to choose staff development activities as part of implementing or supporting a CBE program.

History of Development:

Five criteria were used by the developers of this collection to screen products:

1. The intent of the product must be to provide or support training activities.
2. The training must be designated for middle management school personnel at preschool, elementary and/or secondary levels whose primary function may be (a) teaching, (b) school administration, (c) curriculum development or (d) district administration.
3. The content of the training program or training support tool must be in instructional planning and management.
4. The product must be available for distribution on a national scale and/or replicable through use of guidelines, information consultants, site visitations or other comparable means.
5. The product must have been placed on the market within the last five years.

Of all available products, only products that met all five criteria listed above were chosen for inclusion.

Related Materials:

None

Ordering Information:

The Sourcebook is available from:

Far West Laboratory for Educational Research and Development
1855 Folsom Street
San Francisco, California 94103

Cost: $3.95 (prepaid)

Title: Clark County Curriculum Guides

Descriptor: Twelve teaching guides that consist of a list of behavioral objectives, suggested teaching methods and media covering eight specific areas of the curriculum.

Originator: Clark County School District, Las Vegas, Nevada

Intended Users: Teachers who are concerned with specifying objectives within a curriculum area and curriculum specialists who wish to coordinate school or district planning

Purpose/ Content: In developing the curriculum guides, the school district attempted to provide schools with a starting point for writing objectives. The purpose was not to have it seen as a mandate, but simply to provide a philosophy of objectives-based instruction. Teachers in the district were not to think that this was a suggested approach to instruction. Instead, they were informed that students would be tested for competencies as stated in the objectives.

Usefulness Related to CBE: General behavioral objectives are written so that the teacher may rewrite them specifically for a given program. The guides are not presented as units of work for teachers. The ideas and suggestions which accompany each guide are intended for use based on individual needs and available resources.

History of Development: The goal of the district was initially to create "principal autonomy." After a committee prioritized the curriculum areas for which objectives were to be written, several task force groups were formed with representatives from each school in the district. A chairman was appointed and given one year release time to do the writing for the group. Periodic visits were made by consultants during the development.

Field testing was accomplished through "guide extension." This involved selecting a group of objectives from the guide and designing instruction based on these objectives for one classroom.

History of Development: (Continued)	In addition, a reaction committee was similarly formed and asked to submit statements of opinions and suggestions. There is no documentation available describing the method used to gather data.
Related Materials:	None
Ordering Information:	Write: Information Services Coordinator Clark County School District 2832 East Flamingo Road Las Vegas, Nevada 89121 (702) 736-5011
	Cost: The cost of individual sets of objectives is included with each description.

The following pages include descriptions of the individual curriculum guides described.

Title:	Drug Abuse Education
Descriptor:	A K-12 curriculum guide which outlines component ideas, suggested methodology and multimedia resources for drug abuse education
Publication Date(s):	1969, 213 pp. + biblio.
Originator:	Department of Curriculum Services, Clark County School District, Las Vegas, Nevada
Purpose/ Content:	Three major themes are identified: (1) people--children, students and citizens of the future, (2) individual responsibility for decision making and (3) information necessary to decision making. The authors stress that drug abuse education is not merely acquiring data, but it includes "the development of habits, attitudes, relationships, appreciations, alternative behaviors, self-concept, self-discipline, (and) self-control (which require) an analysis of data." The guide is divided into four sections: grade levels K-3, levels 4-6, levels 7-9 and levels 10-12. Each section is prefaced by a list of general behavioral objectives. Information in each section consists of a list of component ideas, followed by teaching methodology(ies) to be incorporated in the teacher's present plans and appropriate resources. Fact sheets providing readily available data to assist in planning are included. An extensive bibliography consisting of books, pamphlets, school syllabi, serials, journal articles, films, subscriptions and resource agencies is included to assist in planning. A glossary, guide to common drugs, state statutes (Nevada) and regulations (Clark County) are provided in appendices.
Usefulness Related to CBE:	See page 213

History of Development:	Very little information is given regarding the development of this guide. It appears to be a cooperative effort of a curriculum task force made up of district teachers and other contributors from the community and school district. During early stages of development, district teachers provided reactions to the project which in turn served as guidelines.
Related Materials:	None
Ordering Information:	See page 214 Cost: $5.00

Title: EMR Guide K-12

Descriptor: A guide designed to assist teachers of the educable mentally retarded in fitting the educational tasks/objectives to students' needs

Publication Date(s): No date given, 395 pp.

Originator: Clark County School District, Las Vegas, Nevada

Purpose/Content: A curriculum model is used as a framework in this guide, and it incorporates several aspects which in turn work together as a whole. The following are concerns which were considered relevant to writing objectives for EMR's:

1. Social Occupational Competence--this requires the ability to think critically and act independently
2. Instructional Areas--color coded and developed on a K-12 continuum
    a. Learning prerequisites--psychomotor growth, perceptual training, following directions and orientation to self
    b. Communication--reading, writing, speaking and listening skills
    c. Computational skills--mathematics, time, measurement and monetary value
    d. Social living--social awareness, acceptability and mobility
    e. Functional science--self needs, basic health, grooming, nutrition and basic household operations
    f. Occupational exploration--dexterity skills, occupational information, orientation to the world of work and actual on-the-job training
3. Behavioral Objectives--define what, how well and under what circumstances the student will perform (Objectives are written for each of the concepts taught, and include suggested teaching techniques and media.)

Other considerations are discussed in the introduction in order to assist the user in developing effective instruction. These areas include: evaluation, methodology, diagnosis, prescription and individualizing instruction.

Purpose/ Content: (Continued)	A textbook catalog is arranged according to instructional area and provided at the end of the guide. Within each area, information on the title, publisher, copyright and price is included.
Usefulness Related to CBE:	See page 213
History of Development:	This guide was developed through the cooperative efforts of a curriculum task force and a group of consultants. A media selection committee provided the list of media suggestions, and a reaction committee composed of representative district teachers provided feedback for revisions, additions and deletions.
Related Materials:	None
Ordering Information:	See page 214 Cost: $6.00

Title: Interim Curriculum Guide: Music K-12

Descriptor: A teaching guide developed as a precursor to an indepth study for an articulated K-12 music curriculum guide

Publication Date(s): No date given, 73 pp.

Originator: Music Interim Curriculum Committee, Clark County School District, Las Vegas, Nevada

Purpose/ Content: The intent of developers was to "focus on basic experiences and involvement with the essential elements of music throughout both the elementary and secondary levels."

The guide is divided into eight sections or "conceptual areas": melody, harmony, rhythm, tempo, form, dynamics, tone, color and style. A ninth section provides behavioral objectives in the affective domain.

Each of the conceptual areas contains concepts, behavioral objectives, teaching materials and methods. The guide is not complete but is intended to provide examples only.

Usefulness Related to CBE: See page 213

History of Development: A committee of three educators selected by the Nevada Music Educators Association wrote the guide, which is intended to provide guidelines for the schools while an articulated guide is being developed.

Related Materials: None

Ordering Information: See page 214

Cost: $3.00

Title:	Mathematics Curriculum Guide K-6
Descriptor:	A guide for K-6 mathematics that focuses on the sequential concepts necessary to build a sequential mathematics program
Publication Date(s):	1967 (Second Printing), 140 pp.
Originator:	Clark County School District, Las Vegas, Nevada
Purpose/ Content:	The developers state that the primary purpose of this guide is to provide a framework which will facilitate planning appropriate mathematics programs in schools. This is stated more specifically as: (1) identify and classify major mathematical concepts and indicate scope and sequence of content in grades K-6; (2) provide articulation; (3) relate three new textbook series to topics in the guide; (4) provide for smooth transition to the new textbook series. The guide is arranged by grade level with six major concepts or topics and related content items listed in each. These are called "strands" and include the following: Number, Numeration, Operations, Geometry and Measurement. The sixth strand, Problem Solving, does not list specific content items but treats two aspects: (1) developing a strategy for attacking problems and (2) applying mathematics to the real world. For each content item, a specific objective(s) is written in terms of "observable student behavior." The three newly-adopted textbook series are listed as they relate to the content and behavioral objectives. These series are: Addison-Wesley, L.W. Singer and American Book Company. The strands are color-coded so that the teacher may quickly refer to the same strand on any level which helps make the spiraling effect clearer. Spiraling refers to the several approaches to and applications of an increasingly difficult topic through the elementary years.
Usefulness Related to CBE:	See page 213

History of Development:	An inservice course was conducted during the spring of 1967 as a cooperative effort of Nevada Southern University and Clark County School District. The participants reviewed the work and made critical comments as well as suggestions for additions to and deletions from the behavioral objectives.
Related Materials:	None
Ordering Information:	See page 214 Cost: $5.00

Title: Physical Education Curriculum Guide K-6

Descriptor: A guide for elementary teachers which uses fundamental approaches to physical education through the development of behavioral patterns

Publication Date(s): 1971, 177 pp.

Originator: Department of Instructional Services, Clark County School District, Las Vegas, Nevada

Purpose/ Content: The written behavioral objectives emphasize the psychomotor domain, but they also include the social, intellectual and emotional aspects. These areas are defined as follows:

- Physical--development of various organic systems as well as development of neuromuscular skills
- Social--development of qualities (e.g., understanding, fellowship and cooperation) which help an individual relate well to others and self
- Emotional--cultivation of self-understanding, self-respect, self-reliance and self-control
- Intellectual--planning, timing, judgment and recall are essentials of physical activity requiring mental assistance

The information in this guide is arranged by grade levels K-3 and 4-6 and allows several approaches to planning. Some of these approaches include:

1. Preparing a behavioral objective and selecting an activity for actual practice
2. Preparing skill objectives for a sport and identifying necessary behavioral objectives
3. Taking one strand (a major area, e.g., Locomotor-Running) and developing a unit, selecting behavioral objectives and suggested activities
4. Moving through each strand, preparing a behavioral objective every couple of days
5. Utilizing levels of a strand by determining performance levels for each class from the least difficult to the most difficult behavioral objectives
6. Furnishing the students with various activities and games which teach individual skills of each strand
7. Spending a shorter initial period of time on a skill and returning to it later in the year

Purpose/ Content: (Continued)	A series of tests (grade levels) directly related to the content are included. A Cross Reference Guide outlines athletic skills to be covered and identifies the location of grade levels, page number and behavioral objectives for each. A multimedia listing which includes support materials for major concepts concludes this guide.
Usefulness Related to CBE:	See page 213
History of Development:	This guide was developed through the cooperative efforts of a curriculum task force and a group of consultants. A media selection committee assisted with the media listing and a reaction committee composed of representative district teachers provided feedback for revisions, additions and deletions.
Related Materials:	None
Ordering Information:	See page 214 Cost: $5.00

Title: Physical Education Curriculum Guide 7-12

Descriptor: A guide for teachers which uses fundamental approaches to physical education through the development of behavioral patterns.

Publication Date(s): 1971. 230 pp.

Originator: Department of Instructional Services, Clark County School District, Las Vegas, Nevada

Purpose/ Content: The written behavioral objectives emphasize the psychomotor domain, but they also include the social, intellectual and emotional aspects. These areas are defined as follows:

- Physical--development of various organic systems as well as development of neuromuscular skills
- Social--development of qualities (e.g., understanding, fellowship and cooperation) which help an individual relate well to others and self
- Emotional--cultivation of self-understanding, self-respect, self-reliance and self-control
- Intellectual--planning, timing, judgment and recall are essentials of physical activity requiring mental assistance

The information in this guide is arranged by grade levels 7-9 and 10-12 and allows several approaches to planning. Some of these approaches include:

1. Preparing a behavioral objective and selecting an activity for actual practice
2. Preparing skill objectives for a sport and identifying necessary behavioral objectives
3. Taking one strand (a major area, e.g., Locomotor-Running) and developing a unit, selecting behavioral objectives and suggested activities
4. Moving through each strand, preparing a behavioral objective every couple of days
5. Utilizing levels of a strand by determining performance levels for each class from the least difficult to the most difficult behavioral objectives
6. Furnishing the students with various activities and games which teach individual skills of each strand

Purpose/ Content: (Continued)	7. Spending a shorter initial period of time on a skill and returning to it later in the year A series of tests (grade levels) directly related to the content is included. A Cross Reference Guide outlines athletic skills to be covered and identifies the location of grade levels, page number and behavioral objectives for each. A multimedia listing which includes support materials for major concepts concludes this guide.
Usefulness Related to CBE:	See page 213
History of Development:	This guide was developed through the cooperative efforts of a curriculum task force and a group of consultants. A media selection committee assisted with the media listing, and a reaction committee composed of representative district teachers provided feedback for revisions, additions and deletions.
Related Materials:	None
Ordering Information:	See page 214 Cost: $5.00

Title:	Reading and the Kindergarten Child
Descriptor:	A teaching guide which describes reading as a three-stage process in kindergarten
Publication Date(s):	No date given, 34 pp. + a separate 64 pp. appendix
Originator:	Division of Instruction and Curriculum, Clark County School District, Las Vegas, Nevada
Purpose/ Content:	In developing the guide, consideration was given to physical, emotional, social and intellectual development. The developers state that classroom reading instruction must be adaptable for use with individual students. In order to provide flexibility, the instruction in this guide is divided into three stages: Stage I--readiness for reading is developed; Stage II--initial stage in learning to read; Stage III--fundamental reading attitudes, habits and skills. The three-column format used in the guide lists the reading skills, instructional objectives and a reference to the appendix which suggests activities to achieve the given instructional objectives. The media section in the guide lists support materials for each of the stages. A selection committee reviewed a wide range of materials and different approaches in teaching beginning reading. They evaluated media and made recommendations based on criteria showing it to be useful and appropriate for learners in the program.
Usefulness Related to CBE:	See page 213
History of Development:	This guide was developed through the cooperative efforts of a curriculum task force and a group of consultants. A media selection committee provided the list of media suggestions.

Related Materials:	None
Ordering Information:	See page 214 Cost: $6.00

Title: Reading Guide and Selected Multimedia 1-12

Descriptor: A guide for reading and curriculum specialists which outline a developmental reading program on a nongraded basis

Publication Date(s): No date given, 218 pp. + biblio. + a separate 162 pp. appendix

Originator: Clark County School District, Las Vegas, Nevada

Purpose/ Content: The developers point out that "skills (as written in this guide) are not taught in isolation but rather in tandem, as the needs of the student dictate. Grade levels should be ignored and instruction in a skill should begin at the point where it is necessary, regardless of the age of the student or the level of the skills."

The guidelines are written in succession from grades one through twelve. They are color-coded by skills as follows: Listening Skills, Word Recognition Skills, Comprehension Skills and Reading and Study Skills. General behavioral objectives and teaching suggestions are written for each skill and subskill.

The appendix contains various word lists, informal diagnostic tests, a skills checklist, an interest inventory, book lists and articles. This material was extracted from publications by reading teachers who found it helpful.

Usefulness Related to CBE: See page 213

History of Development: This guide was developed through the cooperative efforts of a curriculum task force and a group of consultants. A media selection committee provided the list of media suggestions, and a reaction committee composed of representative district teachers provided feedback for revisions, additions and deletions.

Related Materials: None

Ordering Information: See page 214

Cost: $6.00

Title.	Social Science Study Unit: A Multiethnic Approach
Descriptor:	A compilation of nine units of study relating to interpersonal relations and intercultural understanding for grades K-8
Publication Date(s):	1973, 313 pp.
Originator:	Department of Curriculum Services, Clark County School District, Las Vegas, Nevada
Purpose/ Content:	Three major goals for students provide the basis of this course of study. These state that students will: (1) see themselves as self-actualized persons living among many kinds of people, (2) develop empathy in understanding ethnic groups and (3) think seriously and analytically about ethnic groups and their contributions. The concepts in this document have been taken from the Clark County Social Science guide (See page 233). Vehicles used to teach these concepts are ethnic in nature, focusing on Black-American, Mexican-American, Native-American and Oriental-American. Units at grade levels K-3 emphasize similarities of ethnic groups. Units at grade levels 4-7 focus on individual cultural groups. Level 8 is multicultural, exploring conflict, expression and resolution. This compilation is designed for administrative use, library reference and teachers.
Usefulness Related to CBE:	See page 213
History of Development:	This course of study was the cooperative effort of a group of five elementary and junior high teachers in the district, with two other consulting teachers. There is no indication that field testing occurred or is planned.

Related Materials:	None
Ordering Information:	See page 214 Cost: $5.00

Title: Social Science

Descriptor: A curriculum guide and suggested media for grades 10-12 which uses the inquiry approach in all social science disciplines

Publication Date(s): 1969, 132 pp.

Originator: Department of Curriculum Services, Clark County School District, Las Vegas, Nevada

Purpose/ Content: The considerable introductory material in this guide includes: definitions of social science core disciplines, a glossary of terms, using inquiry in the social studies, the teaching-learning process and using behavioral objectives.

There are three long-range objectives in this guide:

1. Students do not select immediate solutions to the problem but proceed to search for meaning in the problem and explore the consequences of alternate actions available to them. Students develop the ability to use scientific and democratic processes as problem solving tools.
2. Students develop the ability to locate, identify, relate and use empirical data drawn from social and behavioral sciences (facts, concepts and generalizations) in the process of social inquiry and problem solving.
3. In a seminar meeting the students must exhibit the ability to participate in open and respectful discussion of their premise through the presentation of their question, the formulation of their hypothesis and the development of a conclusion. Their group in turn reacts with a critical analysis of the presentation.

The social science disciplines included in this guide are sociology, cultural anthropology, social psychology, political science, economics, history, geography and philosophy.

The information given for each of these disciplines is arranged in five columns, starting with generalizations which provide the planning structure. Each generalization is broken down by

Purpose/ Content: (Continued)	major concepts and subconcepts, and behavioral objectives are written for each listed subconcept. A list of suggested multimedia is provided for each of the disciplines.
Usefulness Related to CBE:	See page 213
History of Development:	This project was the cooperative effort of several groups of teachers in the Clark County School District. The curriculum task force was responsible for development of the guide, while evaluation and selection of materials were done by another group. Two reaction committees were formed, one which reacted to the working copy and another which wrote revisions. There is no explanation of the method used for field testing or the data gathered.
Related Materials:	None
Ordering Information:	See page 214 Cost: $5.00

Title: Appendices G, H, I and J to the Final Report of the Evaluation Service Center for Occupational Education

Descriptor: Four separately published appendices describing objectives and test items in four areas of occupational education

Originator: Evaluation Service Center for Occupational Education (ESCOE), Center for Occupational Education, School of Education, University of Massachusetts, Amherst

Intended Users: High school occupational education teachers and others interested in the development of a systematic objectives-oriented approach to occupational education programs

Purpose/ Content: The purpose of the four appendices is to provide information about the selection of objectives and test items in four areas of occupational education. Each appendix contains descriptions of evaluation and field testing procedures, including discussions of:

- Development and field test procedures
- Item bank descriptions
- Recommended analysis procedures
- Uses

Usefulness Related to CBE: Procedures in developing objectives and objectives-based test items can be useful to the CBE practitioner with curriculum development responsibilities. The lists of objectives and test items also can be useful in helping with the development of occupational education instructional programs.

History of Development: The objectives and test items were developed as part of the work of the Evaluation Service Center for Occupational Education (ESCOE), funded by the states of Massachusetts and New York to:

1. Develop a bank of behaviorally-stated objectives in selected areas of study
2. Train facilitators and teachers in participating LEAs to describe selected areas of the curriculum by behavioral objectives (This includes training in the rationale, uses and implementation of objectives as well as writing, classifying, editing and synthesis of behavioral objectives.)

History of Development: (Continued)

3. Develop a bank of test items and procedures directly related to objectives in these selected areas of study
4. Create a computer input and feedback (retrieval) system
5. Develop a model for synthesizing objectives
6. Create a feedback loop between ESCOE and LEAs

Related Materials: None

Ordering Information: Write:

Massachusetts Department of Education
Director of Research Coordinating Unit
Division of Occupational Education
182 Tremont Street
Boston, Massachusetts 02111

or

New York State Department of Education
Director of Research Coordinating Unit
Bureau of Occupational Education Research
Albany, New York 12224

Costs: Not specified

The following pages describe each of the separately published appendices.

Title:	Appendix G: Criterion-Referenced Item Banking in Electronics
Descriptor:	A report which lists 162 objectives and 114 test items, including the history of development of the materials
Publication Date(s):	June 1972, 188 pp.
Originator:	William Phillip Gorth and Hariharan Swaminathan, ESCOE, Center for Occupational Education, School of Education, University of Massachusetts, Amherst
Intended Users:	Occupational education teachers, curriculum developers and evaluators
Purpose/ Content:	The purpose of the report is to present the results of development efforts in criterion-referenced item banking in electronics. The report contains a history of development work and lists of objectives and items.
Usefulness Related to CBE:	See page 235
History of Development:	Locally generated objectives were combined into synthesized objectives (SYNOBs) by ESCOE. Test developers reviewed these SYNOBs and rewrote them as appropriate. After initial writing of items based on the objectives, items were reviewed by subject specialists, teachers and students. Then a final review, undertaken by the test developers, was made. Booklets containing 162 objectives listing 114 items show the results of development efforts. A Guide to Test Construction for teachers is included in this appendix. No data on field testing are included.
Related Materials:	None
Ordering Information:	See page 236

Title: Appendix H: Performance Test Development in Machine Shop

Descriptor: A report which describes field testing procedures and results of test items in machine shop

Publication Date(s) 1972, 23 pp.

Originator: Jim C. Fortune, ESCOE, Center for Occupational Education, School of Education, University of Massachusetts, Amherst

Intended Users: Occupational education teachers, curriculum developers and evaluators

Purpose/ Content: The purpose of the report is to describe developmental efforts in test construction for a performance-based machine shop curriculum.

The report contains the following sections:

- Conceptual Scheme for Development
- Test Description
- Field Testing
- Revision Recommendations

Usefulness Related to CBE: See page 235

History of Development: Synthesized objectives (SYNOBs) were developed from LEA-generated terminal behavioral objectives. Test items were constructed in a one-to-one correspondence to SYNOBs. A machine shop teacher and a psychometrician collaborated on the formulation of test items. A pilot run of the first test tested only about 1/3 of the curriculum. The test was expanded to cover about 75 percent of the curriculum and then was field tested twice in three schools with several levels of students. Analysis of results indicated to developers that the purposes of field testing were achieved. Revisions for some of the items were suggested, as was the need for better instructions for timing and grading individual performances. The appendix concludes with suggestions for further development of the tests.

Related Materials: None

Ordering Information: See page 236

Title: Appendix I: Performance Test for Auto Mechanics

Descriptor: A report which describes development procedures and test results in auto mechanics

Publication Date(s): June 1972, 61 pp.

Originator: Jim C. Fortune, ESCOE, Center for Occupational Education, School of Education, University of Massachusetts, Amherst

Intender Users: Occupational education teachers, curriculum developers and evaluators

Purpose/ Content: The purpose of the report is to present 47 test items in auto mechanics and to describe the developmental procedures by which they were chosen and tested.

The report contains the following sections:

- Introduction
- Test Development
- Test Unit Materials
- Test Item Bank
- Administration and Scoring Procedures
- Field Review and Recommendations

Usefulness Related to CBE: See page 235

History of Development: After initial review of SYNOBs proved problematic, a search of existing performance tests in auto mechanics was undertaken. This search yielded useful material; however, equipment upon which the tests could be performed was lacking in the LEAs and prohibitively expensive. Developers then turned toward standard mechanics tasks as a starting point for test development. Equipment that could test accomplishment of standard tasks could be constructed. Once test-like events were described, developers compared them to SYNOBs and found a one-to-one correlation, thus enabling the test events to be used within the ESCOE system. From the above work, an auto mechanics test item bank was developed in a one-to-one correspondence with the synthesized objectives. Administration and scoring procedures were also developed.

History of Development: (Continued)	Field review of this test was carried out, but not field testing. Developers felt assured of the feasibility of constructing units such as those presented in the report. Field testing is recommended, conclude the developers, "but only after several testing units are constructed."
Related Materials:	None
Ordering Information:	See page 236.

Title: Appendix J: Woodworking Objective and Test Item Bank

Descriptor: A report which describes procedures and results of the development of objectives and test items in woodworking

Publication Date(s): June 1972, 76 pp.

Originator: Ronald K. Hambleton and Francis Olszewski, ESCOE, Center for Occupational Education, School of Education, University of Massachusetts, Amherst

Intended Users: Occupational education teachers, curriculum developers and evaluators

Purpose/ Content: The purpose of the report is to describe the procedures by which 169 woodworking objectives were developed. Information about the development of test items is also presented.

The report contains an objective and test item bank and a list of materials needed to test each objective. Sample tests and evaluation sheets constructed from the objective and test item bank are included.

Usefulness Related to CBE: See page 235

History of Development: Since many of the SYNOBs in woodworking were found by developers to cover several different skills, it was impossible to develop a single performance task for each SYNOB. Developers agreed to rewrite each SYNOB into as many specific skills as necessary. After reviewing SYNOBs for quality and appropriateness, they were rewritten into 165 specific objectives. A performance task then was written for each of the 165 objectives. Resulting materials were reviewed by five woodshop teachers on two different occasions. Suggestions from this review were used to modify materials. A representative sample of 54 objectives was tested with more than 60 students in the ninth and tenth grades in three schools. Teachers assisted in the selection of objectives covered in the test. Data from the tests are not presented, although developers report that "the results are encouraging."

Related Materials:	None
Ordering Information:	See page 236

Title:	Education in Focus: A Collection of State Goals for Public Elementary and Secondary Education
Descriptor:	A monograph which contains a collection of goal statements from 35 states
Publication Date(s):	1972, 50 pp.
Originator:	Alan Zimmerman, State Educational Accountability Repository, Madison, Wisconsin
Intended Users:	Educators and citizens interested in promoting a greater understanding of the purposes and responsibilities of public eduation
Purpose/ Content:	This publication presents educational goals collected from 35 states. Goals are presented under three broad categories: learner outcome goals, process goals and institutional goals. Learner outcome goals are concerned with student-demonstrated skills, knowledge, abilities and attitudes. Process goals are those related to educational programs and instructional methods appropriate for facilitating the attainment of learner outcome goals. Institutional goals pertain to the organizational structures, management capabilities and financial support necessary to implement both process and learner outcome goals.
Usefulness Related to CBE:	This collection may assist educators in developing, defining, redefining and establishing goals and objectives for elementary and secondary schools.
History of Development:	The State Educational Accountability Repository (SEAR), a component of the Cooperative Accountability Project, has collected goal statements from 35 states and has classified them for cooperative purposes. The procedure for presenting goals consisted of examining all submitted goals, classifying them into categories and subcategories and finally listing them under one of the three previously described headings.

Related Materials: None

Ordering Information: Write: Colorado Department of Education
1362 Lincoln Street
Denver, Colorado 80203

Cost: Free

Title: A Guide to Identifying High School Graduation Competencies: Issues and Examples

Descriptor: A resource for persons concerned with the process of identification, selection and adoption of graduation competencies

Publication Date(s): May 1978

Originator: E. Allen Schenck, Northwest Regional Educational Laboratory (NWREL)

Intended Users: Local and state educational agency personnel and other educators concerned with preparation of high school graduation competencies

Purpose: According to the author, "This guide is intended to assist local and state educational agency personnel to do three things: (1) identify some of the more important questions that are likely to arise during the process of establishing competencies required of students for high school graduation, (2) explore alternative answers to these questions and (3) understand how these questions were addressed by the CBE Program as it developed the set of illustrative competencies. This document is not intended to assist...directly with the processes of measurement, instruction or instructional management...."

Content: The guide is organized into two sections. the first is a description of several "issues to be addressed during the process of competency identification, alternative ways of resolving these issues and the manner in which they were resolved in order to select competency statements for the guide. The second section consists of a set of 77 graduation competency statements which illustrate the type of outcomes being adopted by school systems as graduation requirements for all students."

Usefulness Related to CBE: The issues discussed in this guide should be of interest to educators who are involved in the process of identifying graduation competency statements.

Related Materials:	None	
Ordering Information:	Write:	Office of Marketing Northwest Regional Educational Laboratory 710 S.W. Second Avenue Portland, Oregon 97204
	Cost:	$6.50

OUTCOMES: SELECTION PROCEDURES

Title:	Pupil-Perceived Needs Assessment Package
Descriptor:	A multimedia package to aid in the design and implementation of an assessment of school needs as perceived by pupils
Publication Date(s):	March 1975
Originator:	Research for Better Schools, Inc. (RBS)
Intended Users:	Superintendents, assistant superintendents, building principals, curriculum or evaluation specialists and teachers
Purpose:	Goals: The goal of the product is to enable school administrators and teachers at the district or building level to plan, conduct and report an assessment of school needs as perceived by the pupils. Objectives: It provides school staff with the knowledge and skills necessary to perform the specific tasks of such a project.
Content:	The product emphasizes the knowledge and skills necessary to plan, conduct and report an assessment of school needs as perceived by pupils. These skills allow the user to develop an indicator to use in collecting information from pupils, administer the indicator to pupils and analyze and interpret results.
Usefulness Related to CBE:	Needs assessment is an important aspect of goal setting. This is one of the few products that addresses needs assessment from the student's perspective.
History of Development:	Preliminary product evaluation involving school personnel of varied training and experience indicates that the product can be generalized and transported. Further evaluation will address this issue in greater detail.
Main Activities:	Information is not available.

Provisions for Use:

Format: Five individually bound units, a supplement for sampling and a cassette tape.
Personnel: The product can be used by individuals or small groups (five to eight recommended). No previous experience in pupil-perceived needs assessment is required. The services of an evaluator may be helpful. If the needs assessment project is a group effort, one person should be designated project manager.
Product Components: Worksheets, exercises, checklists, information sheets
Time Span: The time required to study and use the materials is approximately eight hours. The length of an assessment project will vary depending upon the scope and depth of the assessment desired by the user.

Conditions of Use:

No specially trained individuals are required for a district to use the product, whether at the district, building or classroom level. Although it can be used by one person working alone, it is recommended that a group of five to eight people work together. It is helpful if one member of the group is knowledgeable in interpreting evaluation data.

No external assistance or special equipment is necessary. Data may be analyzed manually or by computer, depending on the scope of the assessment and the computer service available.

Related Materials:

None

Ordering Information:

Write: Research for Better Schools, Inc.
1700 Market Street
Philadelphia, Pennsylvania 19103

Cost: $25.00 per copy

One copy per user is needed.

This description was adapted from Catalog of NIE Education Products and Educational Dissemination and Linking Agent Sourcebook.

Title: Project Management Executive Orientation

Descriptor: A multimedia training product to introduce top-level school administrators to concepts and techniques of project management

Publication Date(s): May 1973; November 1975

Originator: C. Peter Cummings and Desmond L. Cook, Administering for Change Program, Research for Better Schools, Inc. (RBS), and Educational Program Management Center, The Ohio State University

Intended Users: Although the training product is intended primarily for top-level administrators, it can also be valuable to school board members and selected community members.

Purpose: The product emphasizes the benefits of project management for a school district and the role of top-level administrators in supporting project activities.

Goals: The goal of the product is to orient top-level school administrators to the use and implementation of project-management procedures for improving the effectiveness of many school operations or activities.

Objectives: The major objectives are: (1) To provide top-level administrators with basic knowledge of the project-management process; (2) to inform top-level administrators of the benefits of the project-management approach for a local school district; (3) to acquaint top-level administrators with the kind of support and assistance that they and functional departments need to provide the project manager and the ongoing project operations; (4) to inform top-level administrators where additional information and assistance regarding project management and its implementation in local education agencies may be found.

Content: Topics included are: (1) definition of a project and project management; (2) examples of the application of project-management procedures; (3) adapting project management to school operations; (4) top-management support and coordination of projects.

Usefulness Related to CBE: Project management skills emphasized in this product can be useful to school administrators who are installing a CBE program in their schools.

History of Development: Particular attention has been given to the quality of the product's content and instructional process. Product development involved analysis, conceptualization, design, construction of prototype, pilot testing and revision, and summative evaluation (1973). Analysis, conceptualization and design involved a task analysis of project management in schools, a review of literature on project management and instructional systems design and consultation with experts in project management and instructional systems design. The construction of the prototype involved the developer and an external project management expert in the writing of lesson material. The pilot testing, field testing, summative evaluation and revisions of the product involved top-level district administrators and many other knowledgeable educators. This developmental process has been carefully documented.

Further, the product has been used by school districts of various sizes in different regions of the United States with comparable results in terms of users understanding the concept of project management, its benefits for school districts and their role in supporting project efforts. Some used the product without the assistance of the developer and achieved the same positive results.

Steps have been taken to assure that the product excludes social bias. During the pilot and field testing of the product, school district personnel brought incidences of bias to the attention of the developers. As a result, changes were made to both the audiovisual and written materials.

Main Activities: The audiovisual component requires one hour of viewing time. Users may choose to read the manual individually or hold a group workshop in which they view the audiovisual material and discuss questions raised in the manual regarding the implications and adaptation of the ideas presented.

Provisions for Use: Format: Manual (required) and 12 filmstrips and tapes (optional)
Personnel: The product can be used by a school superintendent or top-level administrators without any previous training in project management.

Provisions for Use: (Continued)

Districts may choose, however, to obtain consultation or assistance from the developer for the orientation of followup activities.
Product Components: Instructional materials include a manual and 12 filmstrips with synchronized tape cassettes. The manual may be used alone, the filmstrip and tape cassettes may be used alone, or both may be used together.
Time Span: The time required to study the materials varies from one to four hours, depending on the study options selected.

Conditions for Use:

The module is completely self-instructional and requires no external assistance for use.

Related Materials:

- Project Management Basic Principles (See page 255)

Ordering Information:

Write: Research for Better Schools, Inc.
1700 Market Street
Philadelphia, Pennsylvania 19103

Cost: $5.00 per Manual
$25.00 per set of filmstrips and tapes (optional)

One copy of the Manual per student is required. If the filmstrips and tapes are used, one set per class is recommended.

This description was adapted from Catalog of NIE Education Products and Educational Dissemination and Linking Agent Sourcebook.

Title: Project Management Basic Principles

Descriptor: A multimedia, self-instructional training package to improve the project management techniques of school personnel

Publication Date(s): May 1973; November 1975 (Information is current as of February 1975.)

Originator: C. Peter Cummings and Desmond L. Cook, Administering for Change Program, Research for Better Schools, Inc. (RBS), and Educational Program Management Center, The Ohio State University

Intended Users: Project staff personnel, school administrators, school district central office staff, undergraduate and graduate educators, community agencies' personnel interacting with schools and supportive staff and agencies such as state departments of education

Purpose: This training product emphasizes the development of user knowledge and skills required to effectively manage a project in a school district setting.

Goals: The goal of the product is to help school districts manage projects more effectively, thereby meeting time, cost and performance expectations for their school improvement efforts. This is accomplished by providing users with the knowledge and skills necessary to plan, prepare, operate and terminate a project.

Objectives: The skills allow the user to perform such management tasks as: (1) develop a project plan including work structure, work flow diagram, time estimates and budget; (2) prepare for the "startup" of a project; (3) monitor the operation of a project; (4) handle the termination or orderly transition of a project into an ongoing program.

Content: Following an introductory section, the product contains training in the following areas of project management: defining the project goal, developing the project work breakdown and work flow diagram, preparing time estimates, estimating and scheduling resources, developing the project budget, planning the project "startup," developing an information system and a procedures handbook for the project, monitoring project operations, problem solving

Content: (Continued) through management action, implementing any changes in project operations and developing a project termination plan.

Usefulness Related to CBE: Because of the flexibility of this material, it could be used to train school personnel to manage the installation of a CBE system in a school district.

History of Development: The product increases the ability of project managers in local school districts to perform the project management tasks of each of the phases in the project management process. This claim is based on a summative evaluation conducted during 1973 involving several school districts in different states.

Particular attention has been given to the product's content and instructional process. Product development involved analysis, conceptualization, design, construction of prototype, pilot testing and revising, field testing and revision, and summative evaluation. Analysis, conceptualization and design involved a task analysis of project management in schools, a review of literature on project management and instructional system design, and consultation with experts in project management and instructional system design. The construction of the prototype involved the developer and a project management expert in the writing of lesson material. The pilot testing, field testing, summative evaluation and revisions of the product involved project managers from school districts in several states and many other knowledgeable educators. This developmental process has been carefully documented.

Steps have been taken to insure that the product excludes social bias. During the pilot and field testing of the product, school district personnel brought incidences of bias to the attention of the developers. As a result, changes were made to both the audiovisual and printed materials.

The product has been used by school districts of various sizes in different regions of the United States with comparable results in terms of the users' improved ability to perform project management tasks associated with planning, preparing, operating and terminating a project. Users have been able to continue training staff without the assistance of the developer.

Main Activities:

- Define the project goal
- Develop the project work breakdown and work flow diagram
- Prepare time estimates
- Estimate and schedule resources
- Develop the project budget
- Plan project "startup"
- Develop an information system and a procedures handbook for the project
- Monitor project operation
- Apply problem solving principles through management action
- Implement changes in project operations
- Develop a project termination plan

Provisions for Use:

Format: Three looseleaf notebooks, 12 filmstrips and 12 synchronized tape cassettes
Personnel: The product can be used by an individual or group of district staff without previous training in project management or educational administration. Districts may choose, however, to obtain consultation or assistance from the developer for initial staff training or adaptation of the materials to special needs.
Product Components: Materials include user management instructions, learning objectives, a content script and listening tapes. The product provides a mixture of individual and group activities. Each of the lessons can be modified easily to apply to a wide range of school district projects or program activities.
Time Span: The time required to study the materials varies from 24 to 40 hours, depending on the study options selected.

Conditions of Use:

No specially trained individuals are required for a district to use the product. It is recommended, however, that one person coordinate the training of the other staff members. Also, it is recommended that top-level administrators in the district use Project Management Executive Orientation before other staff are trained in the use of this product. In this manner, the users will have the support necessary for implementing many of the procedures they learn in their day-to-day work.

Many users have found it beneficial to view audiovisual presentations for a second time or to refer to printed lesson material during the course of their project management work in the district. Therefore, it is recommended that the materials be kept readily available to project managers after the initial training sessions.

Related Materials	●	Project Management Executive Orientation (See page 251

Ordering Information:	Write:	Research for Better Schools, Inc. 1700 Market Street Philadelphia, Pennsylvania 19103	
	Cost:	Volume I and Volume II	$ 7.50 each
		Volume III	5.00
		12 filmstrips and 12 cassette tapes (optional)	60.00

One copy of each volume is needed for each participant.

This description was adapted from Catalog of NIE Education Products and Educational Dissemination and Linking Agent Sourcebook.

Title: Handbook of Comprehensive Planning in Schools

Descriptor: A training manual designed to assist school personnel, define districtwide curriculum objectives and assess current school programs

Publication Date(s): January 1975

Originator: Sanford Temkin, Michael D. Marvin, Hsuan De Lorme and Herbert Demby, Administering for Change Program, Research for Better Schools, Inc. (RBS)

Intended Users: School district administrators, curriculum coordinators and teachers, working as a team

Purpose: Goals: This planning handbook presents procedures for district administrators, curriculum coordinators and teachers to identify strengths and weaknesses of curricula.

Objectives:

- Teachers and administrators develop a sense of commitment to an organization.
- Team develops goal and priority statements.
- Teachers and administrators identify strengths and weaknesses in curriculum.
- Teachers and administrators recommend ways to improve classroom performance.

Content: The handbook focuses on curriculum improvement, instructional improvement and organizational improvement. Staff are instructed to develop or adapt district goals, assign priorities to district goals and prepare and use classroom indicators of performance. Further, the staff prepares recommendations for curriculum improvement based on data from indicators.

Staff development is also provided in the areas of comprehensive planning, staff involvement, needs assessment, goal setting, priority setting and performance measurement.

Usefulness Related to CBE: The handbook will be useful to schools involved in various stages of CBE implementation.

History of Development:

Throughout product development, formative evaluations were conducted. During the period 1970-73, the product underwent careful development involving analysis and conceptualization, design, construction, pilot test and revision, and field test and revision. Local school districts involved in pilot and field test activities provided important feedback for revision and improvement.

The product has been used in medium-sized urban school systems and large and small suburban districts for different curricular areas. These users were able to write planning objectives, develop indicators of student performance and use the data resulting from the indicators to identify curriculum improvement needs without the assistance of the developer.

The nature of the product's content tends to minimize the chance of social bias. Although the developer has striven for social fairness in writing the material, no formal analysis of wording or examples has been conducted.

Main Activities:

- Team develops or adapts goal statements
- Team assigns priorities to goals
- Team prepares classroom performance measures
- Team builds a plan for inviting other classroom teachers to participate
- Participating teachers use performance indicators
- Team collects and analyzes data
- Participating teachers and principals prepare recommendations for improvement in each school

Provisions for Use:

Format: Team participants work as a group in on-the-job situations.
Personnel: A project manager and 8-15 principals and teachers for each curriculum area. No special expertise is required.
Product Components: The Handbook of Comprehensive Planning in Schools, which contains three sections. Available and recommended is a computer processing system that can be flexibly adapted to the information needs arising from this approach.

Conditions of Use:

The materials have both individual and group exercises for on-the-job applications. A team approach is required. A typical team may include a project manager (often a curriculum coordinator), three or four principals and seven or eight teachers from different schools and various grade levels. Group composition can be varied according to focus on the curriculum improvement activity and staff interests and availability.

Conditions of Use: (Continued)

Strong commitment to participatory decision making by central office staff is essential. A considerable amount of release time for participating teachers is necessary. Since each school district tends to fashion a different approach for each curriculum area, the time required is difficult to prespecify. Some summer work for participants is usually required as well.

This training manual has been used in a three-day workshop mode. Workshop topics could include planning objectives, priorities, program structures and performance indicators. The workshop mode requires the leadership of a seasoned consultant.

Related Materials:

Since this package helps staff to suggest curriculum improvements, several management tools could be effectively used in conjunction with this product. For example:

- SWRL Instructional Product Selection Kit (IPSK) (See page 525)
- Curriculum and Instruction: Planning Improvement (See page 425)

Ordering Information:

Write: Educational Technology Publications, Inc.
140 Sylvan Avenue
Englewood Cliffs, New Jersey 07632

Cost: $9.95 per copy

One copy of the handbook for each participant is suggested.

As suggested above, release time is an expense.

Reproduction and printing of materials developed by the team is an expense, as well as data processing activities. The recommended computer system is operated by the Provident National Bank in Philadelphia. Information about this capability is available from the Field Services Division of RBS, 1700 Market Street, Philadelphia, Pennsylvania 19103.

This description was adapted from Catalog of NIE Education Products and Educational Dissemination and Linking Agent Sourcebook.

Title:	Rural Futures Development (RFD) Strategy
Descriptor:	A comprehensive strategy for improving the capacity of rural educational communities to identify and solve educational problems
Publication Date(s):	Developmental versions of products supporting the strategy were completed in November 1975. Final versions are scheduled for completion by November 1977.
Originator:	Rural Education Program, Northwest Regional Educational Laboratory (NWREL)
Intended Users:	State, regional and local education agency staff, school staff and board members, community group members and process facilitators, who assist local district groups in identifying and solving educational problems
Purpose:	Goals: The goals of the RFD Strategy are (1) to help people in rural communities regain self-determination and local control and (2) to improve the capacity of state and regional education agencies to provide the types of services, specifically through training external change agents called process facilitators, that will result in educational improvements in rural schools. Objectives: Within the strategy there are objectives for each participating group.
Content:	The content of this strategy is a seven-phase problem solving process which is implemented within a region of a state. In the first phase, process facilitators working at the regional level make information about RFD known in local districts. During the second phase, local districts agree to participate and, with the process facilitator's help, organize a School-Community Group composed of parents, school personnel and students. Phases Three through Seven describe the involvement of the School-Community Group in a careful process of assessing district needs, searching for alternatives to meet needs, selecting and planning the implementation of an alternative, and installing and assessing the results of the chosen alternative. Throughout, a process facilitator team works with

Content: (Continued) the group, attempting to develop the level of skill in the group to a point where the services of the process facilitator are no longer required.

As the School-Community Group works through the steps of the problem solving process, process facilitators help in three ways:

- They help the group accomplish tasks.
- They help the group learn procedures for functioning effectively.
- They help the group collaborate with other groups, such as school staff, the local school board, etc.

Usefulness Related to CBE: The RFD Strategy could provide an effective vehicle for the installation of a CBE program in rural schools. At the local level the strategy calls for the formation of a representative group of citizens, school staff members and students, which is assisted in systematic problem solving by an external process facilitator team. Such a problem solving group could play a central role in building commitment to a CBE program in the school and community and in estabalishing a climate conducive to the success of the program. Skills learned through participation in the RFD Strategy could be directly applied to solving problems related to the implementation of a CBE program.

History of Development: The RFD Strategy has been under development since 1972. There are seven products which support the strategy:

- Strategy Descriptions These materials provide basic information to make potential users aware of RFD. Formative data to improve the effectiveness of these descriptions is being gathered.
- RFD Guide for Support Agencies This product provides information, guidelines and procedures to help state and regional educational agencies support educational problem solving at the local level. Explanatory test data are presently being collected for this product. Further information about tests of this and other RFD products is available from the Research and Evaluation Unit of the Rural Education Program (see address on page 266).
- RFD Manual for School-Community Process Facilitators This product provides information, guidelines and resources for process facilitators who assist school-community

History of Development: (Continued)

groups in rural districts and who assist school staffs and boards to collaborate effectively with school-community groups. A prototype version of the manual, based on the results of exploratory testing, has been completed. Further evaluative testing of the manual will not take place apart from the context of the entire RFD Strategy evaluation.

- RFD Guide for Training School-Community Process Facilitators This product, along with accompanying sample training activities, is designed to be used by state and regional education staff who are designated as part of a state- or regionwide RFD installation effort, as trainers of process facilitators. A prototype version of the Training Guide, based on the results of exploratory testing, has been completed. Further evaluative testing of the training guide will not take place apart from the context of the entire RFD Strategy evaluation.
- RFD Notebook for School-Community Groups; RFD Guide for School Boards; RFD Guide for Schools These three products provide information, resources and guidelines to help school-community groups, school boards and school personnel participate effectively in the RFD Strategy. Prototype versions of each of these products, based on the results of exploratory testing, have been completed. Further evaluative testing of these products will not take place apart from the context of the entire RFD Strategy evaluation.

The RFD Strategy currently is being tested in its entirety in the eastern part of the state of Washington; adaptations of the Manual and Training Guide are being used to train some 35 Oregon Community Education Coordinators in the skills of process facilitation and six Community Education Directors as trainers of coordinators. Similar adaptations are being made to train 50-70 Cooperative Extension Service agents in Washington in the skills of process facilitation and some 16 CES leaders as trainers.

Main Activities:

The RFD Strategy is a comprehensive approach to planned change that begins with a need at the local level for educational improvements. Regional and state agencies undertake to meet those needs in the following ways: (1) the regional agency hires process facilitators and (2) the state agency hires trainers of process facilitators. As the strategy has been implemented to date, the state and regional

Main Activities: (Continued)

agencies enter into a contract with the Rural Education Program, which provides consultation as an RFD project is being installed and which trains both process facilitators and trainers of process facilitators. Training is built around the problem solving cycle with which process facilitators help local problem solving groups; training is directly related to the actual work that process facilitators are doing in a district. At the conclusion of an RFD project, regional agencies have fully trained process facilitators on their staff; state agencies have trained trainers who can train process facilitators in other regions of the state; local districts have citizens, staff and students skilled at the identification and solution of educational problems.

Provisions for Use:

Format: Training sessions take place in a workshop setting and are augmented by opportunities for on-the-job assistance, where a trainer accompanies a process facilitator to the local district in which he/she is assisting a group with problem solving skills.
Personnel: Regional process facilitators and state process facilitators trainers
Product Components: See History of Development
Time Span: One complete problem solving cycle may be accomplished in one to two years.

Conditions of Use:

The RFD Strategy is designed to be useful in virtually any rural educational setting since it is oriented to processes rather than predetermined solutions.

Related Materials:

- Keys to Community Involvement (See page 661)

Ordering Information:

Information about the RFD Strategy is available from:

Jack Allen, Director
Rural Education Program
Northwest Regional Educational Laboratory
710 S.W. Second Avenue
Portland, Oregon 97204

Cost: Not yet determined

Title:	Determining Instructional Purposes
Descriptor:	A three-unit training package for educational administrators concerned with long-range planning and decision making
Publication Date(s):	1972 (Interim Release Form); 1974
Originator:	Joyce P. Gall, Charles L. Jenks, Linda J. York, J. Gregory Otto and Nancy G. Bostick, Far West Laboratory for Educational Research and Development (FWL)
Intended Users:	Assistant superintendents, curriculum directors, principals, department heads and head teachers, grades K-12. May also be useful in graduate training for administrative credentials.
Purpose:	Developers are of the opinion that actually a great many educators need training in one or more of the areas of goal setting, problem analysis and deriving objectives. Goals: Participants will be provided an opportunity to apply concepts and principles learned to their present or prospective job situations. Objectives: There are three major outcomes to be realized upon completion of the three units: 1. "Improved knowledge of and attitude toward deriving district goals 2. "Sharpened skills in identifying instructional problems and defining problems using existing and desired student outcomes 3. "Deriving objectives as part of the goal refinement process and ultimately translating goals into more specific statements of desired learning outcomes"
Content:	Three units, each designed for a specific purpose, are divided into modules: Setting Goals is in four modules: ● Deriving district goals ● Refining goals into goal indicators ● Screening sets of goal indicators ● Prioritizing goal indicators

Content: (Continued)

Analyzing Problems is in six modules:
- Which problem signals warrant further analysis?
- What problems do the signals imply?
- What additional information is needed?
- How should the information be collected?
- Are the problems valid?
- If they are valid, how serious are the problems?

Deriving Objectives is in four modules:
- The goal refinement process
- Screening objectives
- Analyzing sets of curricular objectives
- District planning for goal refinement

Usefulness Related to CBE:

The materials in this training treat comprehensive K-12 school and district problem situations (as well as) district goals and goal refinement. Aside from the variety of illustrations drawn from K-12 district and school settings, the processes of goal setting, problem analysis and goal refinement could be easily adapted to any instructional setting without regard to grade level, curriculum content or organization.

History of Development:

Each of the units was field tested under separate conditions as described by the authors: "Setting Goals was field tested at three school districts and at two universities; 74 subjects participated in 1971 and 1972. Analyzing Problems was field tested at a university on four different occasions, with 44 subjects in 1971. Deriving Objectives was tested at five sites with 12 to 168 participants (graduate students, school personnel and professional organization workshop participants) in 1971-1972."

Main Activities:

The training in all of the units is similar in format. Each is made up of reading assignments and input materials. In addition, there are worksheets to be completed and then reviewed by another group participant. Self-test exercises with suggested responses provide regular immediate feedback. Group discussions are held at the conclusion of each module within a unit. As a process is learned, individual assignments are given, based on each participant's "real life situation."

Provisions for Use:

Format: Workshop or course

Personnel: Regardless of the format used, a coordinator is essential to successful training. The coordinator schedules the units, leads discussions, makes any necessary modifications in training and monitors the progress of participants. No special training is needed for the coordinator.

Provisions for Use: (Continued)

The manual provides all the necessary information for conducting sessions. The only prerequisite for participants or coordinator is a familiarity with how schools function.

Product Components: A Coordinator's Handbook and three loose leaf student manuals for each of the training units

Time Span: Two to three hours per module is given as an estimated time, totaling 30-45 hours to complete all three units. This time may be divided into smaller sections and scheduled over a long period or it may be completed in a two- or three-day session. The time needed is largely dependent on the intensity of the group.

Conditions of Use:

As much as possible the units provide the participants with an opportunity to apply what is learned to their present school situation. Each of the units remains flexible in scheduling, sequencing, setting and the number of participants to be trained. Modifications based on group needs can be applied easily.

Related Materials:

- Evaluation for Program Improvement (See page 431)
- Handbook of Comprehensive Planning in Schools (See page 259)

Ordering

Write: Far West Laboratory for Educational Research and Development
1855 Folsom Street
San Francisco, California 94103

Cost:

Coordinator's Handbook	$ 6.00
Unit 1 Setting Goals	10.00
Unit 2 Analyzing Problems	10.00
Unit 3 Deriving Objectives	10.00
"Sample Kit" (sample pages of each unit)	1.00

Title: Educational Goals and Objectives: A Model Program for Community and Professional Involvement

Descriptor: A packet which contains activities for community goal setting and instructions for teachers in writing performance objectives

Publication Date(s) 1972

Originator: Program Development Center of Northern California, Butte County Schools, Chico

Intended Users: School district staff, administrators, students and community members

Purpose: The purpose of this product is to provide an inexpensive but effective educational planning model.

Goals: The strategies comprising the model are aimed at involving community members, professional staff and students in three areas:

- Ranking educational goals
- Assessing how well current programs are meeting goals
- Developing performance objectives that are consistent with goals.

Objectives: Several objectives for this program are listed:

- To secure community participation in the determination and prioritization of goals
- To increase community and professional involvement, interaction and communication
- To provide documentation of district needs for state and national consideration
- To develop a defensible basis for allocating resources
- To improve teachers' and administrators' program planning skills
- To enhance opportunities for educators to serve effectively in leadership roles

Content: An Administrator's Manual provides management procedures designed to insure the smooth functioning of the program. Suggestions for the selection of committees to accomplish tasks are provided, followed by sections that describe two "phases" of the program. Phase I provides a model strategy and management procedures for ranking educational goals

Content: (Continued)

and determining district needs. In Phase II techniques and procedures for translating district needs into performance objectives are presented.

Usefulness Related to CBE:

The course in performance objectives appears to be usable in a situation where there are persons who desire to learn to write them. It is, itself, a competency based course, with the objectives explicitly stated, with activities keyed to objectives and with frequent opportunities for feedback related to achievement of objectives. This program would also be useful in generating district commitment to and involvement with a CBE-like program.

History of Development:

Between September 1971 and May 1972, "Educational Goals and Objectives" was field tested and revised in 15 school districts in northern California. By June 1973, more than 76 school districts had implemented the program in goal setting.

The course in the writing of performance objectives was developed in the fall and winter of 1971. Fifteen administrators critiqued course content in February 1972. The course was field tested and revised between March 1972 and January 1973 in 18 northern California districts. At the same time, the Instructor's Manual was field tested.

Results indicated acceptance and demonstrated the ease of use of both the goal setting activities and the course in performance objectives.

As of September 1974, 1,800 districts had used this program.

Main Activities:

A community committee is selected, using one of several suggested procedures provided in the Administrator's Manual. In two meetings, the community committee engages in processes to:
(1) rank 18 goals (derived from the California School Boards Association in 1969 and provided in the package; other goals may be added) and
(2) determine the extent to which those goals are being met by present programs.

Teachers in the district are then led through an instructional system that is designed to teach them to write performance objectives.

Alternative strategies for managing the program are suggested, as are adaptations to large and small districts.

Provisions for Use: Activities involving the community committee take place in two 2- to 3-hour workshops, spaced about one week apart. These activities need an activity leader or other kind of workshop supervisor. The Administrator's Manual suggests procedures for conducting these activities.

Instruction in the writing of performance objectives takes place in four weekly meetings. An Instructor's Manual is used by the instructor and a booklet, "A Programmed Course for the Writing of Performance Objectives," is used by each participant. These materials are included in the product.

Conditions of Use: It is recommended that district administrators play an active role throughout the life of the project. Persons to lead the community committee will be needed (suggestions for providing leadership to the committee are presented in the Administrator's Manual). Persons who can carry out instruction in writing performance objectives are also required, and suggestions for recruiting such persons are also found in the Administrator's Manual. It is also suggested that all procedures described in the Administrator's Manual be adhered to as closely as local conditions permit.

Related Materials:

- Educational Goals and Objectives: A Programmed Course for the Writing of Performance Objectives (See page 271)

Ordering Information:

Write: Phi Delta Kappa, Inc.
Commission on Educational Planning
Box 789, 8th and Union Street
Bloomington, Indiana 47401

Cost: $4.00 per workshop packet (refundable)

A workshop packet is needed by each participant.

Title: Interpersonal Communications

Descriptor: An instructional program for school personnel which shows how to increase interpersonal communications

Publication Date(s): 1973 (Revised Edition)

Originator: Charles Jung et al., Improving Teaching Competencies Program, Northwest Regional Educational Laboratory (NWREL)

Intended Users: Teachers, administrators, supervisory and coordinating personnel and preservice education students. The instructional system also can be used with high school students and parent groups.

Purpose: In the traditional system of self-contained classrooms, most educators have carried out their roles in relative isolation. Many potentially valuable innovations have not been implemented successfully due to issues of influence, polarized conflict and ineffective communications. Increased interpersonal communications skills of school personnel will reduce at least one hindrance to local improvement efforts.

Goals: This program provides (a) information about the process of communication, (b) opportunities for participants to increase their interpersonal communication skills and (c) experiences for understanding one's own styles of communication.

Objectives: This program provides teachers with competencies in:

1. Paraphrasing to assure understanding of what others are saying
2. Describing behavior to enable others to identify and recognize the specific behavior to which an individual is responding
3. Describing, as distinguished from expressing, feelings
4. Checking one's perceptions of others' feelings or intentions
5. Identifying nonverbal communication cues
6. Applying guidelines to giving and receiving feedback
7. Identifying the effects of expectations in communications
8. Applying the concept of matching behavior with intentions in communicating

Purpose: (Continued)

9. Identifying freeing and binding responses which affect openness of communication
10. Applying the circular process model of interpersonal relations to identifying behaviors in one's own style of communicating
11. Identifying the effects of roles on communications
12. Identifying the effects of norms on communications
13. Identifying the effects of one- and two-way communications
14. Identifying patterns of communication
15. Identifying the influence of one's personal style of communicating under pressure
16. Applying techniques of assessing one's knowledge and skills in interpersonal communication
17. Applying guidelines to creating self-improvement communication exercises
18. Developing interpersonal support for improving communication skills

Content:

A workshop provides participants with knowledge and skills generally applicable to:

1. Face-to-face communication
2. Individual styles of communicating
3. Group and organizational factors which affect communication
4. Continued improvement of one's communication skills

During the workshop, exercises include: (a) paraphrasing, (b) behavior description, (c) describing feelings, (d) nonverbal communication, (e) the concept of feedback, (f) matching behavior with intentions, (g) communicating under pressure and (h) communication patterns in the school building.

Usefulness Related to CBE:

The success of implementing competency based programs relies on good communication within and between groups as they attempt to explore what it is and how to do it.

History of Development:

This is one of a series of training packages for organization development specialists developed by the Improving Teaching Competencies Program. Evaluation reports, including field test data, are available from the Director, Office of Marketing, NWREL.

Main Activities:

Educators frequently are involved with communication behaviors focused on in these exercises. It is assumed they do not often give them much attention.

Main Activities: (Continued)

These exercises bring them more clearly into awareness. Certain knowledge about communicating is made explicit.

Improving skills goes beyond becoming clearer about what is already known. Each exercise involves participants in practicing the behaviors and receiving "feedback" from others concerning their use of them. The emphasis is on learning TO DO as well as on gaining knowledge. Many skills in interpersonal communications involve the personal style of the individual. For example, the exact behavior used in "paraphrasing" is a matter of personal style. Many alternative behaviors, with particular contexts, can meet the criteria which define the skill of "paraphrasing." These exercises provide opportunity for participants to become clearer about their personal styles.

To summarize, the sequence of 20 exercises provides three kinds of learning: (1) participants become clearer concerning things to know about interpersonal communications, (2) they practice what they do in interpersonal communications and (3) they become able to recognize more clearly their own personal style of communicating with others.

Provisions for Use:

Format: Designed as a teacher inservice workshop
Personnel: One experienced trainer or a team of qualified trainers for 12-36 participants (materials provided for multiples of six)
Product Components: One trainer's manual per trainer, one set of participant materials per participant, nine 16mm films, and one audiotape. The group may also wish to use the following: Field Test and Outcome Milestone Report for Interpersonal Communications (1974) and Summary of Interpersonal Communications Field Test and Outcome Milestone Report (1975). Special equipment needed consists of one film projector and one tape recorder.
Time Span: There are 20 sessions which require approximately 30 hours to complete. Whenever possible, training should be covered in five consecutive days or two sessions of two and one half days held within two weeks.

Conditions of Use:

Although there are no prerequisites, participants must be present for every session of the workshop since the exercises are sequential and cumulative. Other considerations would be cost of a trainer for five days and release time for participants for five days.

Related Materials: Other workshops of the Improving Teaching Competencies Program are:

- Research Utilizing Problem Solving (RUPS) (See page 541)
- Preparing Educational Training Consultants: Skills Training (PETC I) (See page 293)
- Preparing Educational Training Consultants: Consulting (PETC II) (See page 297)
- Preparing Educational Training Consultants: Organizational Development and Organization Self-Renewal (PETC III) (See page 301)
- Interpersonal Influence (See page 305)
- Social Conflict and Negotiative Problem Solving (See page 309)

Ordering Information:

Write: Xicom, Inc.
RFD #1
Sterling Forest
Tuxedo, New York 10987
(914) 351-4735

Cost:	Leader's Manual: Interpersonal Communications (396 pp., loose leaf, and three-hole punched)	$ 19.95
	Participant Materials (342 pp., loose leaf, and three-hole punched)	$ 12.95 per set
	Audiovisual Instructional Materials: Set of nine 16mm sound films and one audiotape	$275.00 per set

Above prices plus shipping charges. Optional evaluation reports are available for $5.00 each.

Title: A Curriculum Rationale #8

Descriptor: A filmstrip-tape program which shows teachers how to use Ralph Tyler's society-student-subject curricular rationale

Publication Date(s): 1969

Originator: W. James Popham, Graduate School of Education, UCLA

Intended Users: Experienced as well as prospective teachers who are concerned with selection of goals for school programs

Purpose: Goals: None stated

Objectives: There are four major outcomes identified with this program. At the conclusion, the learner should be able to:

1. Distinguish whether educational questions are primarily related to ends or means
2. Correctly match descriptive phrases with components of the curricular model
3. Fill in a blank diagram depicting major components of the curricular model treated in the program
4. Write an essay response describing the process of curricular decision making which reflects increased sophistication regarding the selection of educational goals

Content: The Tyler Rationale deals with a system for the selection of objectives. This process begins with consideration given to three sources (student, society and subject) in order to develop general, tentative goals. These goals then are screened by the curriculum writer's philosophy of education and knowledge of the psychology of learning. The process culminates with precise objectives which serve as ends to instruction.

Usefulness Related to CBE: Teachers involved in this program should begin to appreciate the importance of an equal concern for the substance as well as the form of instructional objectives.

History of Development: The program was field tested twice in 1968 with secondary teaching credential candidates at UCLA. There is resulting quantitative data available in

History of Development: (Continued)

the instructor's manual. A description of testing reveals that pre- and posttests were administered on an "item sampling basis wherein different individuals received different items and no individual completed the entire test."

Main Activities:

Learners view a filmstrip and make responses on an answer sheet. However, followup activities depend on individual group needs. In an inservice, teachers and administrators may discuss the program in an after school session. For preservice courses the filmstrip may be used as an adjunct to courses in curriculum.

Regardless of the user group, each participant is required to take the examination which may be used as a pretest and/or a posttest.

Provisions for Use:

Format: Used best to supplement a course or workshop focusing on the area of curriculum
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- An illustrated filmstrip, typically 30-40 frames
- Accompanying audiotape (reel-to-reel or cassette)
- Instructor's manual suggesting techniques for using the program. It also includes copies of the answer sheet and examination which may be duplicated locally.

Time Span: The audiotape narration is approximately 30 minutes in length.

Conditions of Use:

Since the filmstrip advocates measurable skills, they should be used to achieve identifiable competencies.

Related Materials

Other VIMCET programs treating the area of curriculum:

- Deciding on Defensible Goals via Educational Needs Assessment #25 (See page 281)

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired. Order by title and program number. Two-week preview available for any two filmstrip programs.

Title:	Deciding on Defensible Goals via Educational Needs Assessment #25
Descriptor:	A filmstrip-tape program which describes the use of preferential ratings of objectives to aid in the selection of educational goals
Publication Date(s):	1971
Originator:	W. James Popham, Graduate School of Education, UCLA
Intended Users:	For experienced as well as prospective teachers who are concerned with selection of goals for school programs. The "introductory" nature of the material might make it most appropriate for preservice programs.
Purpose:	Goals: None stated Objectives: The following measurable objective is provided for the program: "After completing the program the learner will be able to prepare a written plan for an educational needs assessment procedure, using a real or fictitious educational situation, which is judged superior to a comparable plan prepared prior to the program."
Content:	The strategy called educational needs assessment is treated in depth as a specific procedure in goal selection.
Usefulness Related to CBE	An enclosed examination provides a measure of the competencies stated in the instructional objective shown above, and since the filmstrip advocates measurable skills, they can be used to achieve identifiable competencies.
History of Development:	The program has not been field tested extensively. A similar version was tried with five graduate students at UCLA. An independent judge evaluated four of the five responses on the posttest as superior to the respective pretest responses.
Main Activities:	Learners view a filmstrip and make responses on an answer sheet. However, followup activities depend on individual group needs.

Main Activities: (Continued)

In an inservice, teachers and administrators may discuss the program in an after school session. For preservice courses, the filmstrip may be used as an adjunct to courses in curriculum.

Regardless of the user group, each participant is required to take the examination which may be used as a pretest and/or a posttest.

Provisions for Use:

Format: Used best to supplement a course or workshop focusing on the area of curriculum
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- An illustrated filmstrip, typically 30-40 frames
- Accompanying audiotape (reel-to-reel or cassette)
- Instructor's manual suggesting techniques for using the program. It also includes copies of the answer sheet and examination which may be duplicated locally.

Time Span: The audiotape narration is approximately 30 minutes in length.

Conditions of Use:

None

Related Materials:

None

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired. Order by title and program number. Two-week preview available for any two filmstrip programs.

Title: Educational Objectives #1

Descriptor: A filmstrip-tape program for teachers which analyzes the attributes and advantages of measurably stated instructional objectives

Publication Date(s): 1967

Originator: W. James Popham, Graduate School of Education, UCLA

Intended Users: Experienced as well as prospective teachers who are concerned with improving their teaching proficiency

Purpose: Goals: None stated

Objectives: The author states that after viewing the program the learner should be able to:

1. Accurately distinguish between written objectives which are stated in terms of student behavior and those which are not so stated
2. Convert nonbehavioral objectives to objectives which adequately describe post-instruction pupil behavior
3. Obtain a score on an attitude inventory which reflects a more favorable disposition toward behaviorally stated instructional objectives

Content: The program treats the area of what makes a behavioral objective operational.

Usefulness Related to CBE: This program should be useful in developing a positive attitude toward operationally stated instructional objectives. A possible followup to the program would be to convert nonbehavioral goals in the given situation into operational terms.

History of Development: Over a period of two years the program was field tested and objectives were revised with different sized groups in preservice courses at UCLA.

A major field test was conducted when the program was tested against three other teaching methods addressing the same topic. Three criterion measures were administered before and after treatments. Following this, it was field tested in an inservice education course. Extensive quantitative data shown in tables in the instructors' manual indicate that the program was effective.

Main Activities:

Learners view a filmstrip and make responses on an answer sheet. However, followup activities depend on individual group needs.

In an inservice, teachers and administrators may discuss the program in an after school session. For preservice courses the filmstrip may be used as an adjunct to courses in curriculum. For both groups a 20- to 25-minute discussion of presented topics is desirable.

Regardless of the user group, each participant is required to take a two-part examination which may be used as a pretest and/or a posttest. Each section is based on one of the measurable objectives for the program.

For post-program discussion The Instructional Objectives Preference List (IOPL) may be used. This is a 20-item inventory which "purports to measure one's positive affect toward behaviorally stated goals."

Provisions for Use:

Format: Used best to supplement a course or workshop focusing on the area of curriculum
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- An illustrated filmstrip, typically 30-40 frames
- Accompanying audiotape (reel-to-reel or cassette)
- Instructor's manual suggesting techniques for using the program. It also includes copies of the answer sheet and examination which may be duplicated locally.

Time Span: The audiotape narration is approximately 30 minutes in length.

Conditions of Use:

This program provides the opportunity to determine whether behavioral objectives for "higher level cognitive operations from the student" can be stated. Participants handle this best if they use important instructional objectives from their own field.

Related Materials: Other VIMCET programs treating the area of curriculum:

- Deciding on Defensible Goals via Educational Needs Assessment #25 (See page 281)

Ordering Information: Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired. Order by title and program number. Two-week preview available for any two filmstrip programs.

Title:	Identifying Affective Objectives #10
Descriptor:	A filmstrip-tape program for teachers which outlines a four-step strategy for generating noncognitive objectives
Publication Date(s):	1969
Originator:	W. James Popham, Graduate School of Education, UCLA
Intended Users:	Experienced as well as prospective teachers who are concerned with improving their teaching proficiency
Purposes:	Goals: None stated Objectives: The author states that after viewing the program the learner will be able to: 1. Describe the strategy recommended in the program for identifying measurable affective objectives 2. When presented with a previously unencountered nonbehavioral objective in the affective domain, generate a greater number of measurable affective objectives than the learner was able to before completing the program
Content:	The emphasis of this program is centered upon the specification of affective objectives.
Usefulness Related to CBE:	The program can be helpful in getting teachers acquainted with the difficult-to-deal-with affective domain. A two-part examination based on the objectives is enclosed.
History of Development:	The program was field tested with 112 teachers and administrators from three school districts in southern California. At that time the first part of the examination was administered as a pretest and a posttest. Perfomance went from 2 percent on the pretest to 98 percent on the posttest. The second part was administered in the same way with the scores revealing that learners had more than doubled their output of behaviorally stated objectives in the affective domain.

Main Activities:

Learners view a filmstrip and make responses on an answer sheet. However, followup activities depend on individual group needs.

In an inservice, teachers and administrators may discuss the program in an after school session. For preservice courses the filmstrip may be used as an adjunct to courses in curriculum.

Regardless of the user group, each participant is required to take the examination which may be used as a pretest and/or a posttest. Each section is based on one of the two objectives of the program.

Provisions for Use:

Format: Used best to supplement a course or workshop focusing on the area of curriculum
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- An illustrated filmstrip, typically 30-40 frames
- Accompanying audiotape (reel-to-reel or cassette)
- Instructor's manual suggesting techniques for using the program. It also includes copies of the answer sheet and examination which may be duplicated locally.

Time Span: The audiotape narration is approximately 30 minutes in length.

Conditions of Use:

Since the filmstrip advocates measurable skills, they should be used to achieve identifiable competencies. It is recommended that some time be given to post-program discussion of those objectives which learners think are stated behaviorally and in the affective domain.

Related Materials:

Other VIMCET programs treating the area of curriculum:

- Deciding on Defensible Goals via Educational Needs Assessment #25 (See page 281)

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired. Order by title and program number. Two-week preview available for any two filmstrip programs.

Title:	Project Interaction
Descriptor:	A process of involving the educational community in developing objectives and solving problems
Publication Date(s):	No date given
Originator:	Management Responsibility Guidance (MRG) Corporation
Intended Users:	School personnel, students and members of the public
Purpose:	This procedure was developed by the originator for the Office of the Superintendent of Public Instruction in the state of Washington. The purpose of the project is to bring about better education. *Goals*: The project does this by helping members of the educational community in: • Setting objectives and solving problems in relation to the student • Understanding roles and responsibilities of others in the educational community • Developing an understanding of the interrelatedness of various roles and responsibilities *Objectives*: Not stated
Content:	Two processes comprise *Project Interaction*: • Images of Potentiality, a process for goal setting • Management Responsibility Guide Process, a systematic, planned approach to organizational and interorganizational effectiveness
Usefulness Related to CBE:	*Project Interaction* appears to contain processes that would enhance public participation and that could be used to develop a management system for a CBE program. Management Responsiblity Guidance Corporation, the developer of this procedure, is experienced in tailoring its processes, which would heighten their effectiveness in a CBE context.
History of Development:	Images of Potentiality is a process that was developed by Robert S. Fox, Ronald Lippitt and Eva Schindler-Rainman. The Management Responsibility Guide process has been in use since 1961 to help individuals and groups within an organization to establish communications

History of Development: (Continued)

and accountability networks and to define and solve role and role relationship issues.

Data indicate support for the hypothesis that in schools which participate in the MRG program, participants report increases in involvement in decision making and increases in role clarity. Increases in communication, trust and problem solving effectiveness are also reported.

Project Interaction is being used in Washington in four settings:

1. District educational community
2. Local school community
3. Board/district office interface
4. School/district interface

Main Activities:

Within the Imaging Process, participants go through a series of steps to generate images of the community's ideal future.

The Management Responsibility Guide (MRG) process uses a matrix format and an accountability language to obtain each participant's role and relationship. These are perceptions concerning key aspects of the educational job to be done. Then participants jointly resolve differences in their respective roles and relationships. The five phases of the MRG process are:

1. Defining the job that should be done
2. Determining how individuals perceive relationships
3. Identifying key issues and differences
4. Clarifying relationships and resolving differences
5. Converting "what should be" to operating reality

Provisions for Use:

Format: The overall process format varies depending on the community.
Personnel: MRG personnel are available to help adapt the processes to local conditions and needs.
Product Components: A workbook describing the processes which may or may not be used by the consultants.
Time Span: Not specified

Conditions of Use:

No constraints or conditions of use are indicated.

Related Materials:

None

Ordering Information: Write: Management Responsibility Guidance Corporation
10801 National Boulevard
Los Angeles, California 90064

Cost: Not specified.

Title: Preparing Educational Training Consultants: Skills Training (PETC I)

Descriptor: The first in a series of three cumulative and sequential instructional systems designed to train educators in assisting small groups to improve process skills

Publication Date(s): 1976

Originator: Rene Pino et al., Improving Teaching Competencies Program, Northwest Regional Educational Laboratory (NWREL)

Intended Users: Educators at any level who wish to acquire trainer and consultant skills

Purpose: PETC I is the first in the series of three PETC systems; it is constructed to be a prerequisite to the other two programs.

Goals: PETC I is an experiential instructional system which provides training in such process skills as goal setting, problem solving, communicating, influencing and decision making.

Objectives: Skills Trainers are prepared specifically by PETC I to:

1. Assess issues and problems within a group
2. Diagnose skill needs of individuals
3. Identify group priorities for skills training exercises
4. Apply criteria for selecting and sequencing skills training exercises
5. Adapt and conduct skills training exercises
6. Evaluate acquisition of skills

Skills Trainers participating in a PETC I program use the techniques and strategies learned in Part I to work with people on group process skills (GPS) in Part II. GPS participants are provided with the opportunity to learn to:

1. Assess existing and potential problems within a group of which they are a part
2. Identify small group process skills which they, as individuals, need to improve functioning in small groups

Purpose: (Continued)

3. Increase experience with these skills by participating in exercises chosen by the Skills Trainer
4. Identify learning for application in back-home setting

Content:

The training of participants includes the following:

1. Assess issues and problems within a small group
2. Diagnose skill needs of individuals within the group
3. Identify group priorities for skills training exercises
4. Apply criteria for selecting and sequencing skills training exercises
5. Adapt and conduct skills training exercises
6. Evaluate acquisition of skills

Usefulness Related to CBE:

Whether a group is working together for the purpose of selecting outcomes, designing tests and instruction, or developing a management system, there are certain key elements to group effectiveness which can be considered critical to success. These are the kinds of things covered in this training.

History of Development:

This is one of a series of training packages for organization development specialists developed by the Improving Teaching Competencies Program. Evaluation reports, including field test data, are available from the Director, Office of Marketing, NWREL.

Main Activities:

The PETC I system is a two-part workshop. The first part of the program consists of a one-week training program during which the PETC I trainees (Skills Trainers) study the basic concepts of the instructional system. Also, during the first week, the Skills Trainers are provided with a series of exercises to practice group skills training.

The second part of the workshop is a practicum for the Skills Trainers. During the practicum the Skills Trainers form trios; each trio works with a second group of 12 to 24 people. This second training week is referred to as the Group Process Skills (GPS) workshop, and the second set of participants are called GPS trainees. These sessions, which are conducted over a five-day period, are designed so GPS trainees can obtain training in group process skills from the trio of Skills Trainers. The techniques and strategies of group process exercises are applicable to any group for whom the materials are new.

Provisions for Use:

Format: Two-Part Workshop. Part I prepares Skills Trainers to conduct group process skills exercises. Part II allows Skills Trainers to practice while they conduct a workshop for others in group process skills.
Personnel: The trainer should have some experience in workshops such as this one, e.g., Interpersonal Communications (see page 275) or Research Utilizing Problem Solving (RUPS) (see page 541). During Part II of the workshop, the trainer functions as a resource for the participants.
Product Components: Part I: Skills Training, consists of one set of instructional strategies per senior trainer, one set of participant materials per skills trainer, one set of collection of exercises per senior and skills trainer and multiple copies of exercises per workshop. Part II: Group Process Skills Practicum, consists of one set of instructional strategies for GPS per skills trainer, one set of participant materials per GPS participant and multiple copies of exercises per workshop.

The group also may wish to use the following: Field Test Technical Report for Preparing Educational Training Consultants: Skills Training (PETC I) (1975) and Outcome Evaluation Report for Preparing Educational Training Consultants: Skills Training (PETC I).
Time Span: Two weeks are required for Skills Trainers, five consecutive days for Part I and either five consecutive days or two 2½-day sessions for Part II. Part II, the GPS workshop, requires one week of GPS participant time.

Conditions of Use:

These materials are sequentially organized toward the cumulative attainment of the stated objectives. The training design includes a great deal of participant interaction for feedback, simulation trials and interdependent action. For this reason, all participants are required to commit themselves to full attendance at all workshop sessions.

Related Materials:

Other workshops of the Improving Teaching Competencies Program are:

- Research Utilizing Problem Solving (RUPS) (See page 541)
- Interpersonal Communications (See page 275)
- Preparing Educational Training Consultants: Consulting (PETC II) (See page 297)
- Preparing Educational Training Consultants: Organizational Development and Organizational Self-Renewal (PETC III) (See page 301)

Related Materials: (Continued)

- Interpersonal Influence (See page 305)
- Social Conflict and Negotiative Problem Solving (See page 309)

Ordering Information:

Write: Commercial Educational Distributing Services
8116 S.W. Nimbus
Beaverton, Oregon 97005

Cost:

Part I: Skills Training	
One set of instructional strategies per senior trainer	$ 8.90
One set of collection of exercises per senior trainer	7.85
Multiple copies of exercise handouts	
Part II: Group Process Skills (GPS) Practicum	
One set of GPS instructional strategies per skills trainer	6.80
One set of GPS participant materials per GPS participant	5.90
Duplicating options for multiple copies of exercise handouts	
One set of 138 camera-ready exercise handouts	11.00
Twelve sets of all exercise handouts	64.00
Twelve copies of a single exercise handout	.50
Optional evaluation reports	5.00

Title: Preparing Educational Training Consultants: Consulting (PETC II)

Descriptor: The second in a series of three cumulative and sequential instructional systems designed to help a cadre of educators acquire process training and consulting skills

Publication Date(s): 1976

Originator: Rene Pino et al., Improving Teaching Competencies Program, Northwest Regional Educational Laboratory (NWREL)

Intended Users: The kinds of organizations that are expected to sponsor PETC training include private and public educational institutions such as universities, colleges, state departments of education and school districts.

Purpose: Goals: The general goal of the PETC II instructional system is to prepare educational managers who can manage more effectively and educational consultants who can temporarily help educators to work more effectively in groups, i.e., committees, task forces and faculties.

Objectives: These are stated as follows:

- To prepare educational training consultants to (1) apply differential diagnostic techniques and intervention strategies in temporarily helping a client system add, or strengthen, a function to realize a value or attain a goal and (2) diagnose their own competencies and derive an explicit rationale for assuming the consultant role.
- In this training, the educational training consultants will (1) apply phases of planned change in working with a client system; (2) apply a three-dimensional diagnostic matrix to identifying client needs; (3) apply a three-dimensional intervention matrix to working with the client system to meet a need; (4) identify their own competencies as related to the cells of the two matrices; (5) identify their own professional growth needs and goals; (6) identify their own values and ideological bases for assuming the consultant role.

Content: Participants are trained in areas to cover each of these objectives.

Usefulness Related to CBE: PETC II graduates should be capable of forming a temporary relationship with a small group or major subsystem of an educational organization to help it make progress toward implementing CBE programs and/or to use these skills to improve the part of the organization over which they have managerial responsibilities. They help by diagnosing the organization's problems and providing assistance that will temporarily add or strengthen such functions as managing, planning and producing which allow the group to accomplish its immediate goals more adequately.

History of Development: This is one of a series of training packages for organization development specialists developed by the Improving Teaching Competencies Program. Evaluation reports including field test data are available from the Director, Office of Marketing, NWREL.

Main Activities: A PETC II workshop is divided into three parts, the first consisting of three consecutive ten-hour days of instruction in basic concepts of consulting. A typical workshop includes from 10 to 15 trainees and two trainers. Trainees are introduced to a variety of conceptual models and schema related to planned change. These include models developed by Lewin (1951) and Lippitt (1958) and comprehensive diagnostic and intervention models developed especially for this instructional system. Part two is a three-day practicum in which trainees engage in consulting projects with client systems prearranged by the workshop sponsor. Part three concludes the training with three days of debriefing, evaluation of the consulting practicum and integrating learnings of the workshop.

Provisions for Use: Format: Three-Part Workshop. Part I gives instruction in basic concepts of consulting; Part II provides a three-day practicum with client; Part III includes debriefing, evaluating the practicum and integrating learnings of the workshop.
Personnel: Two qualified trainers can train 10-15 participants. A training manual includes a set of orientation papers which outline procedures for installing or starting a PETC II workshop.

Provisions for Use: (Continued)

Product Components: One set of instructional strategies per trainer and one set of participant materials per participant are needed. Participants also may choose to use the following:

- Interim Evaluation Report for Preparing Educational Training Consultants: Consulting (PETC II) (1976)
- Field Test and Outcome Milestone Report Preparing Educational Training Consultants: Consulting (PETC II) (1976)
- Summary of Field Test and Outcome Milestone Report for Preparing Educational Training Consultants: Consulting (PETC II) (1976)

The following special equipment is needed: cassette recorder and tapes, newsprint, felt pens, masking tape, name tags and resource library (approximately 25 books, as specified in training materials, one copy each).

Time Span: Training is spread over a period of eight months. Included are a two-day preworkshop assignment, 17 days of workshop meetings and at least ten days spent conducting an OD project.

Conditions of Use:

Participants must be present for every session of the workshop since the exercises are sequential and cumulative.

Related Materials:

Other workshops of the Improving Teaching Competencies Program are:

- Interpersonal Communications (See page 275)
- Research Utilizing Problem Solving (RUPS) (See page 541)
- Preparing Educational Training Consultants: Skills Training (PETC I) (See page 293)
- Preparing Educational Training Consultants: Organizational Development and Organizational Self-Renewal (PETC III) (See page 301)
- Interpersonal Influence (See page 305)
- Social Conflict and Negotiative Problem Solving (See page 309)

Ordering Information:

Write: Commercial Educational Distributing Services
8116 S.W. Nimbus
Beaverton, Oregon 97005

Cost:

Participant Materials (one per participant)	$14.00
Training Manual (one per trainer)	$17.70

The Resource Library may be purchased or borrowed from a library.

Title: Preparing Educational Training Consultants: Organizational Development and Organizational Self-Renewal (PETC III)

Descriptor: The third in a series of three cumulative and sequential instructional systems to provide organizational development skills for educational managers and consultants

Publication Date(s): 1977

Originator: Rene Pino et al., Improving Teaching Competencies Program, Northwest Regional Educational Laboratory (NWREL)

Intended Users: Educational personnel with consulting skills who wish to acquire organizational development training and a high degree of consulting skills

Purpose: PETC III is planned as an instructional strategy by which organizations can build their own capacity (1) to carry out organizational development activities by regular staff members on a continuous basis and (2) to provide organizational development training and consultation as needed to maintain expected levels of capabilities for all managers, leaders, supervisors and others filling roles of change agents.

Goals: The PETC III instructional system prepares participants to become educational training consultants.

Objectives: As a result of training, consultants are expected to be able to:

1. Identify and explain the major organizational development conceptualization and intervention strategies that are presented in the PETC III instructional system
2. Meet with a potential client group and translate this group's difficulties into a specific problem or problems on which the group wishes to work
3. Establish a definite and workable relationship and contract with a client group
4. Collect information from the client group so that the group's problem(s) may be diagnosed and clarified

Purpose: (Continued)

5. Design, provide and assess the effectiveness of intervention activities that allow the client group to explore and examine alternative norms, processes and structures
6. Design, provide and assess the effectiveness of intervention activities that allow the client group to accomplish normative, procedural or structural changes resulting in increased functional capability in the organization
7. Achieve a terminal relationship with the client group by gradual withdrawal and by establishing structures and procedures to substitute for the services provided by the consultant

Content:

Organizational development cases involve such things as: (1) problems of communication (particularly upward), (2) intergroup conflict, (3) leadership issues, (4) questions of identity and destination, (5) questions about satisfaction and the ability of an organization to provide adequate and appropriate inducements and (6) questions of organizational effectiveness. In other words, three categories of problems which are often addressed by OD are:

1. Problems of destiny-growth, identity and revitalization
2. Problems of human satisfaction and development
3. Problems of organizational effectiveness and organizational health

Usefulness Related to CBE:

In learning to build and maintain improved ways of functioning in the organization, consultants will be better prepared to identify where CBE fits into the whole and how it relates to existing situations.

History of Development:

This is one of a series of training packages for organization development specialists developed by the Improving Teaching Competencies Program. Evaluation reports including field test data are available from the Director, Office of Marketing, NWREL.

Main Activities:

During training, PETC III: trainees complete a two-day preworkshop assignment, attend 17 days of workshop meetings and spend a minimum of ten days conducting an organizational development project with a predetermined client group. The following outlines the timeline for major training events:

- Month 1: Preworkshop assignment (total one day)
- Month 2: Four-day workshop meeting
- Month 3: Three-day workshop meeting
- Month 4: None
- Month 5: Three-day workshop meeting
- Month 6: Three-day workshop meeting

Main Activities: (Continued)

- Month 7: None
- Month 8: Four-day workshop meeting

There are approximately 30-35 days between workshop meetings for OD project work with client groups.

Provisions for Use:

Format: Workshop
Personnel: Two qualified trainers per 12-27 participants (in teams of two or three).
Product Components: One set of five monographs per trainer, one set of participant materials per participant and one copy of the central ideas book per participant. Participants also may wish to include *Pilot Milestone Report for Preparing Educational Training Consultants: Organizational Development (PETC III)* (1976).
Time Span: PETC III training is spread over a period of eight months. This system requires 54 hours of training, 21 hours of individual study and nine hours of practical experience with the client. Nine days concentrated time is required or three weeks of three-day sessions.

Conditions of Use:

Participants must be present for every session of the workshop since the exercises are sequential and cumulative.

Related Materials:

Other workshops of the Improving Teaching Competencies Program are:

- *Interpersonal Communications* (See page 275)
- *Research Utilizing Problem Solving (RUPS)* (See page 541)
- *Preparing Educational Training Consultants: Skills Training (PETC I)* (See page 293)
- *Preparing Educational Training Consultants: Consulting (PETC II)* (See page 297)
- *Interpersonal Influence* (See page 305)
- *Social Conflict and Negotiative Problem Solving* (See page 309)

Ordering Information:

Write: Commercial Educational Distributing Services
8116 S.W. Nimbus
Beaverton, Oregon 97005

Cost:		
	Instructional Strategies	$ 5.60
	Participant Materials	$18.85
	Organizational Development in Education	$ 8.80

Title: Interpersonal Influence

Descriptor: An instructional system for training educators in basic influence skills and phenomena

Publication Date(s): 1975

Originator: Ruth Emory and Rene Pino, Improving Teaching Competencies Program, Northwest Regional Educational Laboratory (NWREL)

Intended Users: Teachers, administrators, supervisory and coordinating personnel and preservice education students. The system may also be used with high school students and parent systems.

Purpose: Goals: Not stated

Objectives: The following objectives for the system are listed:

- Ability to identify and explain the major ideas that describe the process of interpersonal influence as presented in the system
- Capability to use guidelines provided to diagnose and analyze forces and effects of influence in selected interpersonal and group situations
- Ability to identify and make judgments about one's characteristic influence styles
- Ability to identify extent and nature of one's own need to influence
- Capability to identify ways in which principles learned and guidelines utilized in the workshop may be applied in settings other than the workshop

Content: The training system contains twenty exercises which are divided into three parts. In the first part, the authors state, "The basic concepts and tools for understanding interpersonal influence are introduced. In Part Two attention is paid to characteristic patterns of responses in which individuals engage as they accept influence or exert influence. Part Three is concerned with how selected group phenomena influence group development."

Usefulness Related to CBE: This training system could be used profitably in schools or school districts that are installing a CBE program to help school personnel understand their own influence needs and styles as they affect CBE implementation. Since a new CBE program may call upon school personnel to assume new role responsibilities, Interpersonal Influence could be effective in helping personnel understand relationships among roles and in helping reduce the level of threat that a new role sometimes entails.

History of Development: This training system has undergone a rigorous cycle of development and field testing; results of field tests are available from the Director, Office of Marketing, NWREL.

Main Activities: A variety of instructional techniques, including role playing activities, films, group discussion and reading, is used in this training system.

Provisions for Use: Format: Workshop

Personnel: One experimental trainer per 12-36 participants. Each participant needs one set of materials; the trainer requires a trainer's manual.

Product Components: In addition to the participants' materials and trainer's manual, there are nine 16mm films and one audiotape that accompany this system. The following equipment is needed: film projector, tape recorder, newsprint, felt pens and masking tape. The room in which the workshop is held should be large.

Time Span: The system is designed to take place over five days, each having four 90-minute sessions. The system is flexible, however, and lends itself to the use of longer evening sessions in order to shorten the number of days necessary.

Conditions of Use: While there are no prerequisites for this training, participants must attend all sessions since the exercises are sequential and cumulative.

Related Materials: Other related instructional systems for organizational development specialists produced by the Improving Teaching Competencies Program are:

- Preparing Educational Training Consultants: Skills Training (PETC I) (See page 293)
- Preparing Educational Training Consultants: Consulting (PETC II) (See page 297)
- Preparing Educational Training Consultants: Organizational Development and Organizational Self-Renewal (PETC III) (See page 301)
- Interpersonal Communications (See page 275)

Related Materials: (Continued)

- Research Utilizing Problem Solving (RUPS) (See page 541)
- Social Conflict and Negotiative Problem Solving (See page 309)

Ordering Information:

Write: Xicom, Inc.
RFD #1, Sterling Forest
Tuxedo, New York 10987

Costs:

Leader's Manual: Interpersonal Influence (237 pp., loose leaf, and three-hole punched)	$19.95
Participant Materials (185 pp., loose leaf, and three-hole punched)	$12.95 per set
Audio-Visual Instructional Materials (four 16mm sound films and two audiotapes)	$240.00 per set

Above prices plus shipping charges

Title:	Social Conflict and Negotiative Problem Solving
Descriptor:	An instructional system to train educators in understanding and using the process of negotiations for role responsibility, dual accountability and dealing with interpersonal conflict situations.
Publication Date(s):	Materials are still under development
Originator:	John Lohman, Improving Teaching Competencies Program, Northwest Regional Educational Laboratory (NWREL)
Intended Users:	Teachers, administrators, supervisory and coordinating personnel, persons from teacher associations, colleges, universities, state departments and community education groups
Purposes:	The author states that the workshop "helps people to develop more useful personal understanding of conflict and to respond more successfully to conflict situations." Goals: Not stated Objectives: Not stated
Content:	Topics covered in this workshop include the following: ● The Nature of Conflict 1. Diagnosing conflict situations 2. Understanding causes of conflict 3. Understanding feelings in conflict situations 4. Identifying interpersonal styles for coping with conflict ● Self-Interest, Values and Conflict 1. Understanding self-interest, values and conflict 2. Examining self-interest, selfishness and altruism 3. Identifying one's own and others' self-interest 4. Understanding assertive, nonassertive and aggressive ways of dealing with self-interest

Content:
(Continued)

- Power and Conflict
  1. Understanding bases of power
  2. Coping with feelings of power and powerlessness
  3. Diagnosing power situations
- A Negotiative Problem Solving (NPS) Process for Conflict
  1. Understanding conditions for NPS
  2. Preparing for NPS
  3. Using negotiation strategies
  4. Assessing negotiation outcomes

Usefulness Related to CBE:
Since the installation of a new program is likely to cause at least some conflict, this workshop can help personnel involved with a CBE program become more skilled at dealing with conflict if and when it occurs.

History of Development:
Materials for this workshop are currently under development, which includes a rigorous cycle of field testing and revision. Evaluation reports describing test efforts to date are available from the Director, Office of Marketing, NWREL.

Main Activities:
Through designated activities and simulations, participants are presented with multiple opportunities to involve themselves in learning about conflict at personal and interpersonal levels. Participants are encouraged to establish and pursue their own learning goals and to support norms of openness to self-inquiry, risk taking and experimenting with new behavior. Opportunity is provided for personal reflection and integration, and for application to participant work settings.

Provisions for Use:
Format: Workshop
Personnel: Two experienced trainers per 20-36 participants.
Product Components: Each participant needs one set of materials, and each trainer requires a trainer's manual. Additionally, newsprint, felt pens and masking tape are required.
Time Span: Five days. This may be covered on consecutive days or consecutive weekends.

Conditions of Use:
This training may be more effective if participants have previous workshop experience in small group process skills. Participants must be present for every session of the workshop since the exercises are sequential and cumulative; interdependence among participants in these exercises is high.

Related Materials:	Other related instructional systems produced by the Improving Teaching Competencies Program are: • Preparing Educational Training Consultants: Skills Training (PETC I) (See page 293) • Preparing Educational Training Consultants: Consulting (PETC II) (See page 297) • Preparing Educational Training Consultants: Organizational Development and Organizational Self-Renewal (PETC III) (See page 301) • Research Utilizing Problem Solving (RUPS) (See page 541) • Interpersonal Communications (See page 275) • Interpersonal Influence (See page 305)
Ordering Information:	Information regarding materials may be obtained from: Director, Office of Marketing Northwest Regional Educational Laboratory 710 S.W. Second Avenue Portland, Oregon 97204 Phone: (503) 248-6950 Cost: Not yet determined

Title	Community Expectations for Student Skills
Descriptor:	A project designed to help school districts obtain community input into the curriculum development process
Publication Date(s):	1976
Originator:	Education Division of American Telephone and Telegraph Company in cooperation with Battelle Institute, Ohio Bell Telephone Company and the Communication Technology Corporation (CTC)
Intended Users:	Local school districts interested in involving community members in the curriculum development process
Purpose/ Content:	This project proposes a method to collect curriculum-relevant information from a sizeable cross-section of a community to learn what knowledge, skills and attitudes it is reasonable to expect of a student. The information is gathered in several specified steps: • The Project Director and staff thoroughly familiarize themselves with the Project processes. • The Project Director and/or staff select and train a small corps of people (trainers) in the "how to" of instructing certain community representatives (group leaders) in the selection of other community representatives (group members) and in conducting skills generation meetings. • Trainers train group leaders. • Group leaders select other community representatives and conduct group meetings during which data--"skill statements" and "descriptors"--are elicited from participants, recorded and transmitted to the Project Director and staff for compilation and analysis. • Data are reviewed, edited and eventually utilized in curriculum development and/or modification.

Usefulness Related to CBE: The Community Expectations for Student Skills could serve as an effective vehicle for the implementation of a CBE program within a local school district. It provides a method for determining the expectations of community members relating to the knowledge, skill and activities students need "to make it in life." The knowledge, skills and attitudes can then be used in creating a competency based, community influenced curriculum.

History of Development: Community Expectations for Student Skills was initially developed and refined at Battelle Institute. It was made available to Bell System companies for use in meeting the educational needs of local communities. Further field testing took place in three districts: Lancaster, Pennsylvania, Woodbridge, New Jersey, and Beaverton, Oregon. An evaluation study of the program by CTC indicated that users were satisfied with the results. The program is currently being implemented in districts across the country.

Main Activities: The project consists of three major parts:

1. Publicity, recruitment and organization
2. Training of group leaders
3. Collection of data

Following a school district's review of the project and their commitment to project implementation, the Project Director and staff carry out the publicity, recruitment and organization phase for a period of approximately ten weeks. Group leaders undergo a two-week training session followed by a two-week period of data collection. Twelve weeks are suggested for data processing, analysis and reporting. These steps result in a collection of skills information which is ready for use by the district's curriculum experts.

Provisions for Use: Format: Group leaders are trained in workshop setting by project trainers. Group leaders in turn conduct community group member meetings with selected members. These sessions focus upon the generation of student learning skills.

Personnel: A project director, project staff, trainers and group leaders.

Product Components:

- A Project Director Manual listing tasks and activities
- A Trainer Guide listing training tasks and activities

Provisions: for Use: (Continued)

- A Group Leader Guide detailing tasks and activities for conducting skills generating sessions
- A slide/tape set explaining the project and its various aspects
- Project overview booklets
- Management, dissemination and public relations materials
- Skill cards used for recording skills generated in community sessions

A basic package contains all material needed to manage the project and materials enough for nine participating groups.
Time Span: Approximately six months

Conditions of Use:

According to the developers the project requires:
1. That there be five types of group representation: resident--teacher--student (10-12th grades only)--administrator--business/industry
2. That each school be represented by at least one resident group
3. That in selecting teacher representation, schools (including secondary schools) be grouped in clusters of three and one teacher group be formed for every cluster
4. That each senior high school be represented by at least one student group
5. That one administrator group represent the total district administrative staff
6. That one group represent business/industry
7. That every effort be made to maintain the established composition of groups, i.e., three group leaders and 12 group members = 15 participants per group

Related Materials:

None

Ordering Information:

Write: Communication Technology Corporation
64 East Main Street
Marlton, New Jersey 08053

Cost*: Basic package of materials described under product components $435.00

*It should be noted that this project has been developed as a "stand alone" project and does not require use of an outside consultant.

OUTCOMES: DEVELOPMENTAL INSTRUCTIONS

Title: Writing Objectives for Improved Instruction

Descriptor: A multimedia kit for teachers and administrators which provides instruction and practice in writing objectives

Publication Date(s): 1972

Originator: James F. Garvey, Superintendent, Glendora Unified School District, Glendora, California, presently teaches in the Graduate School of Education at the University of Southern California and has authored 15 published articles on education and administration. He serves as a consultant in many states.

Richard H. Brautigam, Superintendent, El Centro (California) School District, has been a speaker at national and state conventions and is the author of numerous articles on education and administration.

Intended Users: Separate materials have been produced for teacher and administrator groups.

Purpose: Goals: The program outcomes are expressed as follows: As a result of the learning experiences the administrator will:

- Produce instructional aims, school objectives and instructional objectives which are well written and consistent with district goals
- Evaluate objectives in terms of essential elements, worthiness, feasibility, consistency with district finances and goals
- Evaluate and rewrite, as necessary, objectives in the cognitive, affective and psychomotor domains
- Write well-structured professional growth objectives
- Establish effective teacher performance appraisal based on objectives

As a result of the learning experiences the teacher will:

- Produce objectives in the cognitive, affective and psychomotor domains, which will include all the essential elements and are worthy, realistic and consistent with district finances and goals

Purpose:
(Continued)

- State the need for and produce a balance of objectives in the three domains
- Express confidence in one's own ability and a positive attitude toward constructing instructional objectives and using them for measurement
- Write objectives in the areas of (1) expected student progress, (2) suitable learning environment, (3) proper student control and (4) other adjunct duties

Objectives: Not stated for this kit.

Content:

The kit contains three major sections:

1. A filmstrip-cassette overview (24 frames/color/15 minutes) introduces major terms and concepts developed and presented in the two programs.
2. The teacher's program consists of the Teacher Audi-Text (28 pages; ten texts included in kit) and two audio-cassettes (four sides); this section follows a programmed text format with the work-text providing exercises and the cassette-lectures providing instruction, enrichment and answers to text problems on such topics as learner-centered objectives, essential elements of objectives, taxonomy of objectives and suitability and quality of objectives.
3. The administrator's program provides specialized enrichment of the teacher's program and consists of an Administrator's Guide (14 pages) and an audio-cassette; this section offers additional instruction and practice on the construction and evaluation of objectives.

Usefulness Related to CBE:

The kit is compact and could be made easily available to individuals or groups without a lot of planning, expense or time involvement.

History of Development:

The development of the content and method of this originated through several years of inservice training in the Glendora Unified School District. Field testing has been done in classes of teachers and administrators at the University of Southern California.

The authors do not include any more specific information related to field testing. Anticipating the constant change in needs, however, they are planning updates and revisions as needed.

Main Activities: A filmstrip-cassette overview is presented to the entire group as an introduction.

Teachers use the Audi-Text for a response device as they work with material presented on cassette tape. Activity in this book consists of some discussion and numerous writing exercises.

Administrator groups use a Guide with the cassette tape. This Guide then becomes a reference for the administrator.

The programmed format allows self-graded appraisal of progress; also, opportunities are provided for fellow-student evaluation of objectives. A review quiz is provided in the Teacher Audi-Text. A posttest is optional and consists of meeting specific program objectives as listed in the Teacher Audi-Text, i.e., writing objectives in the three domains and assessing the text.

Provisions for Use: Format: Instructions indicate that the kit is intended for group mode, but it also may be self-instructional.
Personnel: There is no apparent need for a trainer. A kit contains ten copies of the Teacher Audi-Text and one Administrator Guide limiting the number to be handled at one time.
Product Components:

- Administrator's Audio Cassette, programmed with Administrator's Guide (a work-text)
- Sound/Color Filmstrip Overview
- Teacher's Audio Cassettes programmed with Teacher's Audi-Text (ten copies included, work-text format)

Time Span: Completion time of the Teacher Audi-Text is 2½ to 3 hours. Completion time of the Administrator's Guide is 1 to 1½ hours.

Conditions of Use: An introduction explaining the purpose for writing objectives should precede use of the kit.

Related Materials: None

Ordering Information: Write: Career Aids, Inc.
5024 Lankershim Blvd.
North Hollywood, California 91601
(213) 985-5656, 985-5659

Cost: $55.00 complete kit includes ten Teacher Audi-Texts, one Administrator Guide, three cassettes and one filmstrip. Additional Audi-Texts and Administrator Guides are available for $1.00 each.

Title: Educational Goals and Objectives: A Programmed Course for the Writing of Performance Objectives

Descriptor: A workbook for teachers who are learning to write performance objectives

Publication Date(s): 1972, 49 pp. + biblio.

Originator: Program Development Center of Northern California, Butte County Schools, Chico

Intended Users: This product is designed to be used by teachers and/or administrators in a workshop setting to train other school district teachers to write performance objectives.

Purpose: This product was designed to help teachers in school districts respond effectively to data generated by a community-wide needs assessment.
Goals: As part of an overall educational planning model developed by Phi Delta Kappa, this course in writing performance objectives seeks to involve many or all of a district's teachers in the setting of performance standards, so that those standards may clearly be communicated to district citizens.
Objectives: One workshop objective and four meeting objectives are stated for this course. The *Workshop Objective* is: By the termination of instruction, participants will be able to write program and instructional level objectives for critical skill areas in a subject of individual choice. The accuracy will be determined by the instructor and the class, in accordance with the criteria established in the materials of instruction.

Content: The course focuses on several concepts related to the writing of performance objectives. Goal and objective are discriminated, as are the categories of learning behavior: cognitive, affective and psychomotor. Two levels of performance objectives, Program Level and Instructional Level, are explained. Not appearing in the workbook but appearing in the Instructor's Manual is a section discussing strategies for the development of program and instructional performance objectives in the district or school.

Usefulness Related to CBE:	This product is designed to teach the writing of performance objectives to a completely unsophisticated audience. However, since it calls for teachers experienced in the writing of performance objectives to teach the course, the product can involve all of a district's or school's staff in writing objectives. The product would be used to develop the staff's capability to generate its own program and instructional objectives.
History of Development:	No information concerning the history of development of this product is included.
Main Activities:	Participants alternate workshop and independent activities. At workshop meetings the instructor presents material, and there is group interaction and discussion. During independent activities, participants complete specified parts of the programmed workbook.
Provisions for Use:	Format: Four weekly meetings: participants work independently between each. Personnel: It is suggested that a workshop involve no more than 20 persons. Each participant needs the programmed workbook. In order to implement the workshop, certain personnel need to be identified to become instructors for the workshop. The Instructor's Manual suggests only that these persons acquaint themselves with the contents of the Manual and the programmed workbook. Product Components: The two components needed for the workshop are the Participant's Workbook and the accompanying Instructor's Manual. Time Span: Variable
Conditions of Use:	Though designed to be used along with PDK's community needs assessment process, there appears to be no reason this product could not be used alone with either part or all of a school staff. No special preparation is needed by participants, although, as stated above, selection of the instructor is necessary.
Related Materials:	● Educational Goals and Objectives: A Model Program for Community and Professional Involvement (See page 271)

Ordering Information:

Write: Phi Delta Kappa
8th and Union St.
Bloomington, Indiana 47401

Cost: $4.00 per packet (refundable)

Title:	Analyzing Learning Outcomes #11
Descriptor:	A filmstrip-tape program for teachers which introduces task analysis of learner en route behaviors
Publication Date(s):	1969
Originator:	Eva L. Baker, Graduate School of Education, UCLA
Intended Users:	Prospective as well as experienced teachers who are concerned with improving their teaching proficiency
Purpose:	Goals: None stated Objectives: The author states that at the close of the program the learners will be able to: 1. Describe the strategy recommended in the program for deciding on an instructional sequence 2. Formulate relevant entry and en route behaviors for given instructional objectives 3. Generate more entry and en route behaviors than they were able to prior to completing the program
Content:	The approach to the subject in this filmstrip starts with the question, "What do learners have to be able to do before they can succeed?" Most of the discussion is given to specific examples of terminal behavior statements.
Usefulness Related to CBE:	The program advocates measurable skills which can be used to achieve identifiable competencies.
History of Development:	The program has been through two major field test situations. In the first, with 95 secondary teaching candidates at UCLA, results of the examination scores were as follows: pretest, 61 percent correct, and posttest, 82 percent correct. In the second, an inservice with 73 teachers, supervisors and administrators, the results showed 61 percent correct on the pretest and 85 percent correct on the posttest. In addition, the author points out that "fifty-six of the seventy-three participants were able to generate more en route and entry behaviors after viewing the program than they could prior to viewing the program."

Main Activities:

Learners view a filmstrip. However, followup activities depend on individual group needs.

In an inservice, teachers and administrators may discuss the program in an after school session. For preservice courses, the filmstrip may be used as an adjunct to courses in instruction.

Regardless of the user group, each participant is required to take a three-part examination which may be used as a pretest and/or a posttest. Each section is based on one of the measurable objectives for the program.

Provisions for Use:

Format: Used best to supplement a course or workshop focusing on the area of instruction.
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- An illustrated filmstrip, typically 30-40 frames
- Accompanying audio-tape (reel-to-reel or cassette)
- Instructor's manual suggesting techniques for using the program. It also includes copies of the answer sheet and examination which may be duplicated locally.

Time Span: The audio-tape narration is approximately 30 minutes in length.

Conditions of Use:

Teachers involved in this program should be familiar with the strategy of starting instruction with a concern for learner response.

Related Materials:

Other VIMCET products which treat the area of instruction:

- Instructional Tactics for Affective Objectives #24 (See page 613)

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired. Order by title and program number. Two-week preview available for any two filmstrip programs.

Title:	Writing Behavioral Objectives: A New Approach
Descriptor:	A guide for educators in curriculum development attempting to state specific behavioral objectives and evaluate outcomes
Publication Date(s):	1973 (Seventh Printing), 116 pp.
Originator:	H. H. McAshan, College of Education, University of Florida
Intended Users:	Useful for college level students as well as teachers, researchers and curriculum specialists who wish to improve their proficiency in planning and evaluation
Purpose:	Goals: Starting with a goals approach, techniques and mechanics are provided for writing three types of performance objectives: specific noninstructional, minimum level behavioral and desired level behavioral. Objectives: As few as one and as many as 26 specific objectives are provided at the beginning of each chapter.
Content:	Information is presented under the following major topics: behavioral objective components, developing goal statements, identification of evaluation activities, completing the writing process, unique writing problems and guidelines for writing objectives.
Usefulness Related to CBE:	The text provides a strategy for educators who need to develop precise goal statements in order to determine program effectiveness.
History of Development:	The author summarizes the development in the following paragraph: "A preliminary draft of this manuscript was published by the Florida Educational Research and Development Council and distributed to over 2,000 educators in August 1969. By November 1969, the Council had received purchase orders for an additional 26,000 copies, which will attest to the value of this material in training people to write either performance or behavioral objectives."

History of Development: (Continued)	Workshops were held throughout the state of Florida with approximately 30,000 teachers. However, there are no data available to report results of the field testing or how it was conducted.
Main Activities:	Objectives and tests are utilized in each chapter of the text. The examination for Chapter 1 calls for simple memorization of facts. In succeeding chapters the examinations call for an increasingly higher level of cognitive understanding.
Provisions for Use:	Format: The text may be utilized with large or small groups in workshop situations or for individual study. Personnel: There is no apparent need for a group administrator; the book is self-instructional. Product Components: The text alone provides a self-sustaining program. Time Span: Depends upon participant and group needs.
Conditions of Use:	The author states that no assumptions are made regarding experience in teaching, curriculum development or behavioral objective writing.
Related Materials:	None
Ordering Information:	Write: Harper & Row, Publishers, Inc. 419 Park Avenue South New York, New York 10016 Cost: $5.50

Title: Defining Content for Objectives #9

Descriptor: A filmstrip-tape program which describes how to formulate objectives which possess content generality rather than test item equivalence

Publication Date(s): 1969

Originator: Eva L. Baker, Graduate School of Education, UCLA

Intended Users: For experienced as well as prospective teachers who are concerned with improving their teaching proficiency

Purposes: Goals: The author states that "the goal of the program is to promote a more moderate position with respect to the distinction between the substance and form of an educational objective."

Objectives: These are stated specifically, as follows:

1. Describe the desirable relationship an objective should have to test items.
2. Discriminate among objectives which possess content generality and those which do not.
3. Convert objectives which are equivalent to test items to those which possess content generality.

Content: Discussion is given to what an objective should define, with emphasis on content generality.

Usefulness Related to CBE: This program shows participants how to make objectives more useful so that a wide range of test items can be developed for each.

History of Development: The program was field tested with 80 secondary education teacher candidates at UCLA. Pre- and posttest results on the three-part examination showed significant gains at the .01 level.

Main Activities: Learners view a filmstrip and respond on an answer sheet. However, followup activities depend on individual group needs.

Main Activities: (Continued)

In an inservice, teachers and administrators may discuss the program in an after school session. For preservice courses, the filmstrip should be used as an adjunct to courses in curriculum.

Regardless of the user group, each participant is required to take the three-part examination which may be used as a pretest and/or a posttest. Each section is based on one of the three objectives of the program.

Provisions for Use:

Format: Used best to supplement a course or workshop focusing on the area of curriculum.
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- An illustrated filmstrip, typically 30-40 frames
- Accompanying audiotape (reel-to-reel or cassette)
- Instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and quiz which may be duplicated locally.

Time Span: The audiotape narration is approximately 30 minutes in length.

Conditions of Use:

The measurable objectives advocated in the program can be used to achieve identifiable competencies. It is recommended that participants formulate content-general objectives in their particular field of instruction.

Related Materials:

None

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired. Order by title and program number. Two-week preview available for any two filmstrip programs.

Title: Establishing Performance Standards #4

Descriptor: A filmstrip-tape program which describes how to distinguish between class and student minimal proficiency levels

Publication Date(s): 1967

Originator: Eva L. Baker, Graduate School of Education, UCLA

Intended Users: For experienced as well as prospective teachers who are concerned with selection of goals for school programs

Purpose: Goals: None stated

Objectives: There are three behavioral objectives accompanying this program:

1. When given a statement of an objective, to identify the portion of it, if any, which describes a student achievement that enables instructors to identify those students who have satisfactorily achieved the objective
2. When given an objective, to identify the portion of it, if any, which specifies the class performance standard (achievement levels used to judge the adequacy of instruction)
3. When provided with an objective, to construct performance standards of the two types listed above using both quantitative and qualitative standards

Content: The main thrust of this program is in the exploration of one component of behavioral objectives, i.e., the level of achievement.

Usefulness Related to CBE: The program should be useful in helping teachers determine whether the objective(s) has been accomplished and how to assess individual differences in students' level of achievement.

History of Development: Field testing has been done with students in UCLA's Department of Education and Peace Corps teacher-preparation programs. Over a two-year period, approximately 700 students were involved in the program. From this, some revisions were made, such as adding more cartoon visuals to the filmstrip.

Main Activities:

Learners view a filmstrip. However, followup activities depend on individual group needs.

In an inservice, teachers and administrators may discuss the program in an after school session. For preservice courses, the filmstrip may be used as an adjunct to courses in curriculum. Learners should include performance standards in all subsequent classwork.

During the program the learner is asked to use an answer sheet. Regardless of the user group each participant is required to take a quiz which may be used as a pretest and/or posttest.

Provisions for Use:

Format: Best used to supplement a course or workshop focusing on the area of curriculum.
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- An illustrated filmstrip, typically 30-40 frames
- Accompanying audiotape (reel-to-reel or cassette)
- Instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and quiz which may be duplicated locally.

Time Span: The audiotape narration is approximately 30 minutes in length.

Conditions of Use:

The author states that learners should understand what a behavioral objective is prior to viewing the filmstrip.

The problem of establishing levels of achievement in the more subjective fields can be explored in this program. There are two objectives of a high intellectual level accompanied by possible performance standards which help to clarify this aspect.

Related Materials:

Other VIMCET programs treating the area of curriculum:

- Deciding on Defensible Goals via Educational Needs Assessment #25 (See page 281)

Ordering Information:

Write:

Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired. Order by title and program number. Two-week preview available for any two filmstrip programs.

OUTCOMES: REFERENCES

Title:	Where Behavioral Objectives Exist
Description:	An inventory of sources of behavioral objectives
Publication Date(s):	1974, 60 pp.
Originator:	Joseph E. Barrett, Project SPOKE, Norton, Massachusetts
Intended Users:	Professional educators, curriculum writers and other school district personnel who are engaged in curriculum development using behaviorally-stated objectives
Purpose:	The author states that the intent of the inventory is to "assist the user in stating the intents of instruction and (to) provide the basic framework for designing individualized programs of instruction."
Content:	Sixty collections of instructional objectives are concisely described in this inventory. Each description contains the following information: ● Name ● Distributor ● Developer ● Target audience ● Subject area ● Cost ● Description A cross-reference guide is included at the end of the inventory.
Usefuless Related to CBE:	The inventory is useful in giving to the CBE practitioner a comprehensive view of the curriculum areas where behavioral objectives exist, as well as information about how the collections of objectives may be obtained. Specific collections in the inventory may provide useful lists of objectives and curriculum alternatives for a given school district that is starting to engage in CBE.

Related Materials: None

Ordering Information: Write: John Stefani, Director
Project SPOKE
37 West Main
Norton, Massachusetts 02766

Cost: $5.00 per copy

Title: Preparing Instructional Objectives

Descriptor: A book which describes the role and impact of well-stated objectives in instruction

Publication Date(s): 1975 (Second Printing), 133 pp.

Originator: Robert F. Mager, author of several books related to the explicit statement of objectives for instruction

Intended Users: Individuals who wish to learn to write objectives

Purposes: The author expresses the thought in the outset that without planning what is to be accomplished through instruction, the teacher can only make guesses at what will be learned.

Goals: Competency based instruction is a three-step process which starts with the teacher's decision of what is to be taught. The next step is planning how it should be taught. Finally, the teacher must determine whether this was accomplished.

Objectives: The author states one behavioral objective for the learner using the book: "Given any objective in a subject area with which you are familiar, in all instances be able to identify (label) correctly the performance, the conditions and the criterion of acceptable performance when any or all of those characteristics are present."

Content: This book is a programed text with questions asked at regular intervals and answers provided so that the user may move through the material according to needs.

The major topics covered in this book can be summarized as follows:

1. What can be gained from clearly stated objectives
2. How a well-stated objective is characterized
3. Practice in identifying these characteristics

A self-test is included in the back of the book to help the user determine what has been accomplished.

Usefulness Related to CBE: As more and more teachers have become involved in the preparation of objectives, some common problems have been noted. Recognizing this fact, illustrations and suggestions are provided which should help the classroom teacher avoid these problems.

Related Materials:

Other books written by Robert Mager:

- Measuring Instructional Intent
- Goal Analysis
- Analyzing Performance Problems
- Quick-Reference Checklist
- Performance Analysis Poster
- Developing Attitude Toward Learning
- Developing Vocational Instruction

Ordering Information:

Write: Fearon Publishers, Inc.
Division of Pitman Publishing Corporation
6 Davis Drive
Belmont, California 94002

Cost: $3.95

Title: Considerations in Selecting and Using Instructional Objectives

Descriptor: A booklet which explains 11 factors to consider when writing or selecting objectives for effective instruction

Publication Date(s): January 1973, 18 pp.

Originator: Howard J. Sullivan, Chairman, Department of Educational Technology, Arizona State University, and Division Head of Product Development for the Kindergarten Program, SWRL Educational Research and Development

Intended Users: The classroom teacher who possesses a working knowledge of instructional objectives would find this a useful guide written in practical, easy-to-understand language.

Purpose: The author begins with the assumption that "one potential benefit of using instructional objectives as the basis for designing instruction is to help learners accomplish something. Another is to provide evidence that the accomplishments really occurred."

Goals: The author states that the teacher who uses this checklist in writing objectives is assured of realizing considerable success in "select(ing) appropriate instructional objectives and design(ing) effective, appealing instruction."

Content: Each factor of consideration is basic and applicable to all educational experiences. Each one is written as one of the following questions:

1. Is it really important for the student to possess the skill stated in the objective?
2. Does the student already possess the skill stated in the objective?
3. Is the skill or attitude teachable?
4. Should I set performance standards?
5. Is the student given the information needed to attain the objective?
6. Do the instructional activities provide direct practice on the objective?
7. Does the learner possess the prerequisite skills necessary to attain the objective?

Content: (Continued)	8. Should there be alternative instructional methods for the objective? 9. Are the instructional activities potentially appealing? 10. Does the planned assessment measure the skill stated in the objective? 11. Does the importance of the objective justify the estimated time and expense?
Usefulness Related to CBE:	This easy-to-read guide is very useful to individuals wishing to select or write worthwhile objectives.
Related Materials:	• An Evaluation Guidebook--A Set of Practical Guidelines for the Educational Evaluator (See page 455) • Priorities Planning: Judging the Importance of Individual Objectives (See page 341) • Determining Test Length: Passing Scores and Test Lengths for Objectives-Based Tests (See page 453) • Designing Teacher Evaluation Systems, W. J. Popham, Catalog No. PA104, Price $1.25
Ordering Information:	Write: Instructional Objectives Exchange P.O. Box 24095 Los Angeles, California 90024 Cost: $1.00 Catalog No. PA105

Title: Priorities Planning: Judging the Importance of Individual Objectives

Descriptor: A short booklet designed to help educators choose among objectives

Publication Date(s): 1972, 24 pp.

Originator: R. E. Stake

Intended Users: Administrators, evaluators, curriculum developers and teachers who use objectives-based materials

Purpose: The purpose of this reference is to present a step-by-step system for determining the importance of individual objectives. The system involves the application of criteria in the selection of objectives.

Content: This reference contains explanations of four key criteria which may be applied in the prioritization of objectives. The criteria are:

- Need
- Resource allocation
- Payoff probability
- Special conditions

Sample worksheets are supplied to exemplify the process one goes through in applying each criterion. The results of this application are used to determine priorities.

Usefulness Related to CBE: This reference provides a short, handy method for determining priorities among objectives. It could be used in a CBE context by instructional personnel to help them select from objectives they have generated or from an existing collection of objectives.

Related Materials:

- IOX Measurable Objectives Collections (See page 381)

Ordering Information:

Write: Instructional Objectives Exchange
P.O. Box 24095
Los Angeles, California 90024

Cost: $1.00 per copy

Blank priorities planning worksheets are also available from IOX.

Title: Schools and Communities: Setting Goals

Descriptor: A booklet for schools that want to involve the community in goal setting

Publication Date(s): 1976, 39 pp.

Originator: Oregon State Department of Education

Intended Users: School district personnel and citizens who wish to locate information about community involvement in goal setting

Purpose: Developers state the purposes of this booklet as follows:

1. To provide background information about goal setting in Oregon and information about the goal strategies found in the booklet
2. To provide descriptions about seven strategies for setting district-level goals, two strategies for setting program and course-level goals and three procedures for conducting community surveys.

Content: The descriptions of goal setting strategies contain indepth information organized around the following headings:

- Source
- Site
- Administration
- Product
- Procedure
- Utilization
- Cost
- Comment

Descriptions of the community survey techniques utilize all of the above categories with the exception of "source" and "site."

The Planning, Evaluation and Assessment Section of the Oregon Department of Education will supply a Workshop Coordinator's Guide and two slide-tape presentations to school districts who wish to conduct goal setting workshops. These materials are keyed to the contents of this booklet.

Usefulness Related to CBE:	This booklet describes several alternative strategies that could be used to involve district citizens in goal setting.
Related Materials:	None
Ordering Information:	Copies are available from: Documents Clerk Oregon Department of Education 942 Lancaster Drive N.E. Salem, Oregon 97310 Cost: Unavailable at time of printing

Title:	Stating Behavioral Objectives for Classroom Instruction
Descriptor:	A practical guidebook designed to instruct the educator in the preparation of instructional objectives
Publication Date(s):	1975 (15th Printing), 58 pp. + appen.
Originator:	Norman E. Gronlund, Professor of Educational Psychology, University of Illinois
Intended Users:	For use by teachers as a practical guide for preparation of instructional objectives; also appropriate for preservice courses
Purpose:	Goals: There are no specific goals stated for the book. The author describes the approach presented as one which "rests on the assumption that effective teaching and testing require a clear conception of the desired learning outcomes." Objectives: No specific objectives are stated, but again in reference to the approach presented in the book, the author states that it is "one that would include statements of objectives that were general enough to provide direction, without overly limiting the instructional process and specific enough to be clearly defined by the behavior that students were to exhibit when they had achieved the objectives."
Content:	Chapters 1-3 investigate the identification and definition of learning outcomes. Chapter 4 describes implications for the "Taxonomy of Educational Objectives." Chapter 5 explains the selection process, and Chapters 6-8 apply objectives to use in classroom instruction, test preparation and grading. There are three appendices: (a) check list for evaluating objectives, (b) verbs for use in writing behavioral objectives and (c) reference guides.
Usefulness Related to CBE:	This book is most helpful to teachers in clarifying and understanding typical problems of writing behavioral objectives.

Related Materials: None

Ordering Information: Write: The Macmillan Company
866 Third Avenue
New York, New york 10022

Cost: $2.25

Title: Developing and Writing Performance Objectives

Descriptor: A booklet which describes a system for developing and writing performance objectives

Publication Date(s): 1971, 41 pp. + appen.

Originator: Educational Innovators Press

Intended Users: Educators at all levels who wish to learn to develop and write performance objectives

Purpose: The goal of this booklet is to help educators answer questions about the quality and effectiveness of education they are providing their students.

Content: The booklet contains five chapters:

1. An Organizational Structure of Variables Influencing Educational Programs
2. Behavior
3. How to Measure Behavior
4. Critiquing Performance Objectives
5. Writing Performance Objectives

A model containing institutional, instructional and behavioral variables is presented to account for outcomes of educational programs. Concepts of Bloom, Krathwold and Dave are used to specify behavioral outcomes.

Self-tests and summaries are included to help readers test their mastery of the concepts presented in the booklet.

Usefuless Related to CBE: This booklet presents an approach to the development and writing of performance objectives that could be used either as orientation or review material in a CBE context.

Related Materials:

- Developing and Writing Process Objectives (See page 349)

Ordering Information: Write: Educational Innovators Press
P.O. Box 13052
Tucson, Arizona 85711
(602) 795-4210

Cost: $1.50 per copy

Title: Developing and Writing Process Objectives

Descriptor: A booklet which describes a system for developing, writing and monitoring process objectives

Publication Date(s): 1972, 40 pp. + appen.

Originator: Educational Innovators Press

Intended Users: Educators who want to learn to document processes supporting the implementation of new programs

Purpose: The goal of this booklet is to help educators learn a system of developing, writing and monitoring process objectives within an accountability framework.

Contents: The booklet contains five chapters:

1. Components of Accountability
2. Elements of Process Objectives
3. Administration, Support and Instructional Process Objectives
4. Developing Summary Charts and Monitoring Process Objectives
5. Quality Statements in Process Objectives

Review tests are included to help readers test their mastery of the concepts presented in the booklet.

Usefulness Related to CBE: This booklet presents an approach to the development and writing of process objectives that could be used to establish process objectives for a CBE program.

Related Materials:

- Developing and Writing Performance Objectives (See page 347)

Ordering Information:

Write: Educational Innovators Press
P.O. Box 13052
Tucson, Arizona 85711
(602) 795-4210

Cost: $1.50 per copy

Title: Instructional Objectives

Descriptor: A monograph series which provides educators with a topical discussion of issues related to instructional objectives

Publication Date(s): 1970 (Second Printing), 142 pp.

Originator: W. James Popham, UCLA, Elliot W. Eisner, Stanford University, Howard J. Sullivan, Arizona State University, Louise L. Tyler, UCLA, Divisional Committee of American Educational Research Association (AERA)

Intended Users: Anyone in education interested in issues that are associated with instructional objectives

Purpose: The authors state that at the time of writing there was a clear "need to discuss these issues in the open educational forum."

Content: The series includes the following titles:

1. "Instructional and Expressive Educational Objectives: Their Formulation and Use in Curriculum," Elliot W. Eisner
2. "Objectives and Instruction," W. James Popham
3. "Objectives, Evaluation, and Improved Learner Achievement," Howard J. Sullivan
4. "A Case History: Formulation of Objectives from a Psychoanalytic framework," Louise L. Tyler

Each of the papers is followed by a discussion and brief epilogue written by the authors.

Usefulness Related to CBE: As interest in CBE is raised, there is an increasing need for discussion of issues which are commonly raised in initial stages.

Related Materials: This document is part of a larger monograph series on Curriculum Evaluation. The other documents include:

- Perspectives of Curriculum Evaluation, Ralph Tyler, Robert Gagne and Michael Scriven
- Evaluation Activities of Curriculum Projects, Hulda Grobman

Related Materials: (Continued)

- *Research Strategies for Evaluating Training*, Philip DuBois and Douglas Mayo (Eds.)
- *Evaluation as a Tool in Curriculum Development: The IPI Evaluation Program*, C.M. Lindvall and Richard Cox
- *Classroom Observation*, James J. Gallagher, Graham A. Nuthall and Barak Rosenshine

Ordering Information:

Write: Rand McNally and Company
P.O. Box 7600
Chicago, Illinois 60680
(312) 673-9100

Cost: No information is available.

Title: Accountability in Pupil Personnel Services: A Process Guide for the Development of Objectives

Descriptor: A procedural guidebook to assist pupil personnel staff in developing measurable objectives

Publication Date(s): 1971, 113 pp. + appen.

Originator: Robert O'Hare, SWRL Educational Research and Development and Howard J. Sullivan, Arizona State University (Eds.)

Intended Users: Educators in local schools who wish to develop measurable objectives

Purpose: The authors state that, "to begin with, we had to accept the proposition that along with other aspects of education, pupil personnel services should be accountable, should have clearly stated goals and objectives, and should produce measurable outcomes." The authors contend that if procedures outlined in the guide are followed as suggested, users should be able to make a clear distinction between "objectives with functions, or means with ends."

Content: The six chapters in this reference provide a framework involving the major steps in developing, operating and managing an objectives-based program. There are several appendices as follows: (1) four levels of responsibility for guidance programs, (2) criterion variables for the evaluation of guidance practices, (3) flow chart of performance of objectives for educational guidance, (4) counselor responsibility survey form for distribution to students, parents, teachers and administrators, (5) sample guidance objective written by task force, (6) definition of terms and goal statements from Kern High School District, (7) sample goal statements from Santa Ana Unified School District and (8) a chart used by Culver City Unified School District for identifying and treating problems based on needs.

Usefulness Related to CBE: This reference provides specific information relative to procedures for accountability and developing objectives. To date, the paucity of materials for this area has made program development difficult.

Related Materials:

- Evaluating Pupil Personnel Programs (See page 355)

Ordering Information:

Write: California Personnel and Guidance Association
654 East Commonwealth Avenue
Fullerton, California 92631

Cost: $3.50 (members)
$5.00 (others)

Title:	Evaluating Pupil Personnel Programs
Descriptor:	A monograph that discusses issues and procedures for guidance program evaluation
Publication Date(s):	1971, 97 pp.
Originator:	Robert O'Hare, SWRL Educational Research and Development and Barbara Lasser, UCLA and SWRL
Intended Users:	Pupil personnel staff who wish to develop a systematic evaluation strategy applicable at all educational levels
Purpose:	A series of steps is presented from which users are encouraged to choose based upon school or district background and needs.
Content:	The reference is divided into two sections: Section I, Major Issues in Evaluation, discusses major problems and current trends and Section II, Designing Strategies for Improved Evaluation, describes implementation of "pupil based evaluation" programs. In an introductory statement, the authors state that "examples of evaluation studies are provided within two contexts: (1) guidance services and (2) the learning process in the classroom." They contend that "examples from classroom learning provide a useful analogy and emphasize the need for counselors to become more thoroughly involved in the learning process."
Usefulness Related to CBE:	The information in this reference should help to fill a void in the area of objectives development. For any given situation, the procedures described will provide a starting point in planning.
Related Materials:	● Accountability in Pupil Personnel Services: A Process Guide for the Development of Objectives (See page 353)
Ordering Information:	Write: California Personnel and Guidance Association 654 East Commonwealth Avenue Fullerton, California 92631 Cost: $2.50 (members) $3.50 (others)

Title:	Behavioral Objectives: A Selected Bibliography and Brief
Descriptor:	A paper which describes behavioral objectives, why they should be used and where they came from. An annotated bibliography is included.
Publication Date(s):	April 1972, 23 pp.
Originator:	George L. Geis, Centre for Learning and Development, McGill University, Montreal, Quebec
Intended Users:	Educators interested in familiarizing themselves with the basic concepts of behavioral objectives and the major literature on this subject
Purpose:	According to the developer, "the purpose of this paper is to identify and organize the major topics in the area of behavioral objectives and to present a sampling of the literature in that area."
Content:	This paper contains a discussion of (1) the nature of objectives, (2) their usefulness and (3) their origin and influences. Also included are selected references, resources and an annotated bibliography which should assist the reader in developing his/her own objectives. Much of the research on behavioral objectives is included within this publication.
Usefulness Related to CBE:	This paper provides basic information related to behavioral objectives; it should answer questions of educators who are developing outcome statements or who are attempting to utilize behavioral objectives in their classrooms.
Related Materials:	Developing and Writing Performance Objectives (See page 347) Developing and Writing Process Objectives (See page 349)

Ordering Information:	This paper is available (Order No. ED 060 671) from:

ERIC Document and Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Cost: $ .83 (microfiche)
$1.67 (hardcopy)
Plus postage

Title:	The Use of Behavioral Objectives in Education. Reading Information Series: Where Do We Go?
Descriptor:	A paper that reviews and synthesizes literature dealing with behavioral objectives
Publication Date(s):	April 1972, 56 pp.
Originator:	Diane Lapp, Boston University in conjunction with ERIC/CRIER and the International Reading Association
Intended Users:	Educators who are involved in the utilization of behavioral objectives and who desire an overview of related literature
Purpose:	The purpose of this booklet is to present an overview of the literature dealing with behavioral objectives. Additionally, the author synthesizes the strengths and weaknesses of the research reviewed and proposes recommendations for future research.
Content:	Following an introduction, the author presents a review of literature on behavioral objectives. The material is presented in four categories: 1. The educational significance of behavioral objectives 2. Evaluation of student learning and of the instructional program through behavioral objectives 3. Student awareness of and participation in behavioral objectives 4. Teacher training in the development and use of behavioral objectives Material in the sections on synthesis and recommendations is presented according to the categories of educational significance, evaluation, student awareness and teacher training.
Usefulness Related to CBE:	This paper should provide the reader with an understanding of the strengths and weaknesses of the major works of the movement toward the use of behavioral objectives. This knowledge may in turn be applied by the reader to his or her own work in the development of behavioral objectives.

Related Materials:	- Preparing Instructional Objectives (See page 337)
Ordering Information:	Write: Instructional Reading Association 800 Barksdale Road Newark, Delaware 19711 Cost: $1.50 for members, $2.00 for nonmembers

Title: The Goals Approach to Performance Objectives

Descriptor: A text designed to instruct readers in the writing of performance objectives using the goals approach technique

Publication Date(s): 1974, 306 pp.

Originator: H. H. McAshan, Department of Educational Administration and Supervision, University of North Florida

Intended Users: Educators interested in obtaining information and material concerning the rationale and uses of the goals approach writing technique

Purpose: The developer states that "this text is designed to, first, benefit students through better planned, implemented and evaluated instructional programs. Second, the text will benefit educational administrators and prospective teachers who, in the capacity of decision makers, may be held accountable for both the amount and cost of student learning and in turn raise the level of student achievement. Finally, the text should help the educational community to better translate its goals and achievements to the lay community which it serves."

Content: Following a discussion of the goals approach rationale, the author leads the reader through the processes of writing learning-oriented behavioral goal statements, converting them to behavioral objectives and systematically identifying goals or competencies. Additionally, the author presents detailed information on writing behavioral objectives at the different levels of the affective and cognitive domains. The concepts of diagnostic teaching and performance-based instruction are presented, and instruction is provided on the use of performance objectives under the Management by Objectives system for both program and personnel accountability.

Usefulness Related to CBE:	This text provides detailed instruction in the goals approach technique of preparation of performance-based competency modules. It should be of special assistance to instructors preparing learning packets and other competency based instructional materials.
Related Materials:	None
Ordering Information:	Write: W. B. Saunders Company West Washington Square Philadelphia, Pennsylvania 19105 Cost: $5.95

Title:	Establishing Philosophy, Goals and Need Assessment
Descriptor:	A publication for school district staff to assist them in the preparation of educational goals and philosophy
Publication Date(s):	November 1977, 46 pp.
Originator:	Nelson C. Price, San Mateo County Superintendent of Schools, Redwood City, California
Intended Users:	School district staff responsible for planning educational programs
Purpose:	To set forth information, concepts and techniques essential to initiating an educational plan. By using the procedures outlined, school districts should be able to develop and use statements of goals and philosophy which will provide direction to local educational programs while involving a wide range of school community members.
Content:	The topics discussed within this publication include: the place of goals in the overall planning process, examples of district goal statements, the procedure for developing goal statements, how goals are used to determine pupil needs, and the composition of goal indicators.
Usefulness Related to CBE:	This publication presents an approach to goal development that could be used by a district implementing a CBE program
Related Materials:	None
Ordering Information:	This document is available (Order No. ED 090 060) from: ERIC Document and Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: $ .83 (microfiche) $3.50 (hardcopy) Plus postage

Title: Course of Study for Grades Kindergarten Through Eighth 1976-1978

Descriptor: A document which presents a school district's goals and philosophy for 18 subject matter areas

Publication Date(s): 1977, 147 pp., 3 pp. microfiche

Originator: San Mateo County and San Mateo County Office of Education, Redwood City, California

Intended Users: Teachers and administrators

Purpose: The stated purpose of this course of study is "to integrate goals and concepts, mainly from subjects, and (to serve as) frameworks so that teachers and administrators can see the interrelationships of different areas of content."

Content: There are four major sections of this course of study. They are:

Section I
- a. Provisions of the California State Education Code
- b. A description of the California Assessment Program
- c. A list of California State frameworks and other resources

Section II

An overview of the philosophy and goals of early childhood, upper elementary and intermediate education

Section III

An interdisciplinary section covering bilingual-bicultural, career, consumer, disaster preparedness, environmental and traffic safety education

Section IV

Includes all other designated curricular areas for grades kindergarten through eighth

Sections III and IV present a definition and general statement of the philosophy of curricular area, a statement of general program goals and a list of references for each of 18 subject matter areas.

Usefulness Related to CBE: This reference should be useful to educators seeking to integrate and provide a framework for the goals and objectives of various curricular areas.

Related Materials: None

Ordering Information: This document is available (Order No. CM 001-274) from:

San Mateo Educational Resources Center (SMERC)
San Mateo County Office of Education
333 Main Street
Redwood City, California 94063

Cost: SMERC Subscribers

First 10 microfiche are free
$.35 for each additional, or 3/$1.00

Nonsubscribers

$.50 per microfiche
plus postage and handling

Title:	Saving Educational Dollars Through Quality Objectives
Descriptor:	A collection of working papers on the writing of performance objectives
Publication Date(s):	115 pp.
Originator:	Howard P. Alvir
Intended Users:	Teachers and administrators seeking instruction and guidance in the writing of performance objectives
Purpose:	The developer intends this collection "to fill specific needs of teachers starting to think about and write performance objectives."
Content:	The five working papers deal with the following topics which the author identifies as characteristics of quality objectives: 1. Clarity--specifying what an educator is trying to do 2. Accessibility--finding out what other educators are doing 3. Evaluation--determining how well objectives are attained 4. Accountability--the relation between dollars and learning 5. Applications--extending this approach to typical adaptations The author emphasizes the need for quality rather than quantity in objectives. He proposes that the durability and adaptability of quality objectives compensate for the additional cost of constructing quality objectives.
Usefulness Related to CBE:	The collection is helpful to teachers who have basic questions about preparing student performance objectives.
Related Materials:	None

Ordering Information: This document is available (Order No. Ed 115 584) from:

ERIC Document and Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Cost: $ .83 (microfiche)
$6.01 (hardcopy)
Plus postage

Title: Writing Instructional Objectives

Description: A text detailing procedures for creating instructional objectives

Publication Date(s): 1972, 120 pp.

Originator: Caroline Matheny Dillman and Harold F. Rahmlon

Intended Users: Educators interested in learning how to prepare instructional objectives

Purpose: The authors have identified the following seven items as their goals for this text:

1. To acquaint the reader with resource material on objectives
2. To explain useful points to be considered in writing objectives
3. To explain the importance of writing sample test items
4. To present pros and cons of most commonly used verb forms
5. To discuss various style technicalities
6. To show how an acceptable objective is developed
7. To provide users the opportunity to deal with given problem objectives

Content: The authors provide a guide to various materials on the topic of objectives. Six chapters of instruction for preparing the perfect objective, creating sample test items, structuring objectives, identifying the right verb and style technicalities follow. A chapter of check lists and work sheets is provided for reader self-assessment and practice. The final chapter provides examples of problem objectives with space for the reader to make revisions. Examples of author-revised objectives are also included in this section.

Usefulness Related to CBE: This book may be helpful to teachers in understanding the various aspects of the writing of instructional objectives

Related Materials:	None
Ordering Information:	Write: Fearon-Pitman Publishers, Inc. 6 Davis Drive Belmont, California 94002 Cost: $3.25

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Title:	The Competency Movement: Problems and Solutions
Descriptor:	An indepth report on competency based education to help administrators and school boards
Publication Date(s):	1978, 92 pp.
Originator:	Shirley Boes Neill, American Association of School Administrators
Intended Users:	Administrators and school boards
Purpose:	The purpose of this report is to provide an indepth analysis of competency based education. It also offers "how-to" advice, tips and guidelines for those educators interested in implementing CBE in their districts.
Content:	This report is organized into eleven chapters, each covering an aspect of competency based education: ● Overview ● What is the Competency Movement? ● What Do Administrators Think? ● Reasons Behind the Movement ● Declining Test Scores ● Facts and Figures ● National Assessment Can Help ● What's Happening in the States? ● What's Happening in Local Districts? ● How To: Tips and Guidelines on Minimum Competencies ● What Are the Basics?
Usefulness Related to CBE:	This reference should be useful to educators seeking an indepth report of what CBE is, how it evolved, what is happening with CBE now and what implementing CBE in a district would involve.
Related Materials:	None

Ordering Information:

Write: AASA
1801 N. Moore Street
Arlington, Virginia 22209

Cost: $8.95
Two to nine copies, 10% discount
Ten or more copies, 20% discount
Orders for less than $15.00 must be accompanied by payment in full and include $1 for postage and handling.

INDICES

Component Index

Title Index

Originator Index

OUTCOMES

MEASURES

INSTRUCTION

MANAGEMENT

MEASURING OUTCOME ATTAINMENT

CBE program implementation will be facilitated if outcome attainment measures are designed after outcomes are specified and before instruction is determined.*

Measures of outcome attainment may take a variety of forms and may be administered in a variety of settings. The use of multiple measures to assess attainment of a given outcome is often desirable. Where "life-relevant" competencies are being assessed, measurement may more and more frequently be conducted in natural settings. It is essential that test items or other evaluation vehicles measure attainment of the instructional outcomes that have been specified. Measures of outcome attainment are appropriate if they:

1. Require students to perform as specified in the outcome

   For example, for the outcome, "Given examples of orchestra instruments played in solo, the student will name the family to which the instrument belongs," an item which requires that student to name the specific instrument rather than the family would be inappropriate.

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*The process of selecting or writing performance measures to assess outcome attainment may lead to revision of some outcomes. This might occur, for example, because an outcome as stated is not measurable or because the process of writing the performance measure suggests that an outcome is either undesirable or subsumed by other outcomes.

2. Present the content as specified in the outcome

   For example, in the preceding illustrative outcome, an item which presented the example in concert rather than in solo would be inappropriate.

3. Present the full range of content specified by the outcome requirements

   For example, in the preceding illustrative outcome, each family of instruments should be sampled, i.e., strings, woodwinds, percussion and brass.

4. Call for performance in a mode appropriate for the student

   For example, in the same illustrative outcome, it would be appropriate to expect the student to say aloud, mark or write the family name. It would be inappropriate in any mode that students are unlikely to be able to perform.

Clearly articulated, appropriate measurement items or other vehicles for measuring outcome attainment are critical in competency based programs. Such programs require reliable data related to students' attainment of goals for two purposes: (1) to judge the effectiveness of the instruction that is designed to promote goal attainment and (2) to assess individual students' performance with respect to the stated outcomes. Reliable data can be used to make decisions regarding instructional materials or procedures, adjustments in pupil placement and comparisons among competing instructional sequences.

Although outcomes are identified most frequently before test items or specific measurement vehicles are selected or designed, measurement item selection or test construction sometimes is conducted first. In such instances, outcomes then are written to correspond with the test items. Some available collections feature both outcome statements and corresponding test items, enabling users to select outcomes and items concurrently.

This section of the CBE Sourcebook describes materials and resources that will facilitate the process of item selection, test construction and program evaluation:

Available Materials--available item banks and test construction services

Selection Procedures--products which assist the user in selecting resources from available item banks or test construction services

Developmental Instructions--products which assist the user in the design and development of items, tests and evaluation systems

References--references which provide information related to item and test constrution and program evaluation

MEASURES: AVAILABLE MATERIALS

Title:	A Collection of Criterion-Referenced Tests: ERIC/TM Report #31
Descriptor:	An annotated bibliography of 21 criterion-referenced tests available to program evaluators
Publication Date(s):	December 1974, 13 pp.
Originator:	Joan Knapp, Commissioned Author, ERIC Clearinghouse on Tests, Measurement and Evaluation, Educational Testing Service (ETS), New Jersey
Intended Users:	Program evaluators, curriculum specialists, measurement and evaluation specialists or anyone else involved in program and curriculum evaluation
Purpose/ Content:	Each of the test entries in the bibliography includes the following information: description, format and administration, response mode and scoring, technical information and references. A brief discussion is also given of the advantages, limitations and uses of such tests.
Usefulness Related to CBE:	There is considerable disagreement about the definition and use of criterion-referenced tests. The information provided in this bibliography would be of value when deciding whether a criterion-referenced test is most appropriate for various purposes.
History of Development:	These tests were brought together in an attempt to establish a collection within the ERIC system under the subject heading, "Criterion-Referenced Tests."
Related Materials:	None
Ordering Information:	Copies are available without charge from the originator as long as supplies last.

Ordering Information: (Continued)	This document is also available (Order No. TM 004 304) from: ERIC Document and Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: $.83 (microfiche), $1.67 (hardcopy) Plus postage

Title: IOX Objectives-Based Test Collections

Descriptor: Fifteen objectives-based test sets in five subject areas

Publication Date(s): Continuous development since 1972

Originator: Instructional Objectives Exchange (IOX), UCLA Center for the Study of Evaluation (CSE)

Intended Users: Most of the test sets are designed for use at the elementary level.

Purpose/ Content: Test sets cover the following areas:

- Reading
  1. Word Attack Skills, K-6
  2. Comprehension Skills, K-6
- Language Arts
  1. Mechanics and Usage, K-6
  2. Word Forms and Syntax, K-6
  3. Composition, Library and Literary Skills, K-6
- Social Studies
  1. American Government, 10-12
- Mathematics
  1. Sets and Numbers, K-6
  2. Operations and Properties, K-6
  3. Numeration and Relations, K-6
  4. Measurement, K-6
  5. Geometry, K-6
  6. Elements, Symbolism and Measurement, 7-9
  7. Geometry, Operations and Relations, 7-9
- School Attitudes
  1. Attitude Toward School--Elementary (one form for prereaders and one for readers)
  2. Attitude Toward School--Secondary

Each test set consists of the following:

- Description and use statement--describes the development of IOX criterion-referenced tests
- Test manual--describes tests and suggests general procedures for administration and scoring. It also illustrates a precisely stated objective, sample item and amplified objective for each test
- Scoring guide--lists answers for each test
- Preprinted spirit master tests (25-45 tests in each set)

Purpose/ Content: (Continued)

Each test set except School Attitudes is available in two content-parallel forms (A and B) which are boxed and priced separately.

Each test is made up of items written according to stipulations included in a detailed goal statement called an amplified objective (expanded statement of a specific behavioral objective). These allow the teacher to describe exactly what learner behaviors are necessary for answering the test items correctly.

Usefulness Related to CBE:

Because of the ready-to-use format of these tests they are undoubtedly a time-saver for the classroom teacher. Exposure to these tests through use in the classroom may be helpful to the teacher in developing other tests as needed using the IOX format.

History of Development:

In 1968 IOX began making booklets which contained collections of measurable instructional objectives and related test items available to schools. The next step was to provide readily used support materials, specifically, objectives-based tests.

The development procedures described indicate that after category and content-general objectives have been selected, a teacher is brought in from the field to spend a day reviewing the test. After this, the forms are developed and another review is made by another practicing educator, typically a teacher with the subject expertise. Members of the staff (other than those who developed the tests) administer the test to a limited number of students as a tryout. Revisions are made on the basis of this field test. Emphasis is not on extensive field tests with reliability and validity coefficients. Instead, the strategy emphasizes content validity with respect to the match between test items and the amplified objectives which they are designed to measure.

Related Materials:

- Procedural Guidelines--Developing IOX Objectives-Based Tests, Technical Paper No. 8, W. James Popham, August 1972

Ordering Information:

Write: Instructional Objectives Exchange
P.O. Box 24095
Los Angeles, California 90024

Cost: 15 sets available
$45.00 per set (Forms A and B)
$25.00 per set for individual forms

Title:	The Northwest Evaluation Association Item Bank Collections
Descriptor:	Collections of measurement items in reading, mathematics, language arts and reading available in hard copy and computer-based format
Publication Date(s):	These collections will be available in June 1977 and will be updated annually thereafter. The items in the collections are not copyrighted.
Originator:	The Northwest Evaluation Association (NWEA)
Intended Users:	Teachers and other test constructors in the development of survey and mastery tests
Purpose/ Content:	Items in the collections are referenced to the Tri-County Goal Development Project Course Goal Collections (See page 119). These collections identify the goals within a specific subject area and are arranged according to carefully constructed taxonomic blue-prints for the subject. The computer version of the collections makes it possible to retrieve identifyingand statistical information for all items referencing specified goals and to produce goal referenced reports indicating student and classroom mastery of the goals represented on the test. Items in these collections are in multiple choice (four-or five-response) format. There are approximately 1,000 items in mathematics and approximately 1,000 items in reading and language arts spanning grades 3-8. The selection of items for the bank has been targeted for the basic skills goal areas in mathematics, reading and language arts at the indicated grade levels. Items in the collections are appropriate for survey and mastery testing purposes. The hard copy version is printed on index cards for use by teachers and test developers. These cards come with a template and can be arranged in test format for photocopying so that items do not need to be retyped.

Purpose/ Content: (Continued)

The computer version of the collections (banks) is intended for measurement specialists and consists of the content and statistical information for the items in the collections and a series of programs for retrieving and updating the banks as well as maintaining inventory control. The supporting computer programs make it possible to develop content coverage and performance information for all tests based on items drawn from the bank, as well as creating the computer job setups necessary to machine score student answer sheets. In the current version, it is not possible to print tests via the computer system, so the hardcopy version is the sole resource for item reproduction.

The statistical information available for an item includes its difficulty as calibrated on the continuum for that subject, its average discrimination and its fit-to-the-item characteristic curve. Items can be retrieved from the banks by specified goal difficulty level to insure the appropriateness of items for specified ability or achievement groups.

Usefulness Related to CBE:

The items in the collections are indexed with respect to content coverage (learning goals) and difficulty (calibrated continuum). The collection is ideally suited to the development of CBE-related tests when using the Tri-County course goals. The computer version makes it possible to produce goal-referenced reports indicating student and classroom mastery of the goals represented in the tests.

History of Development:

The items in these collections were contributed to the Northwest Evaluation Association by school districts throughout the states of Washington and Oregon. Prior to acceptance into the bank, all items were field tested one or more times. Items with low discrimination (point biserials below .30) or questionable performance (widely fluctuating difficulty calibrations) have been deleted from the collections.

The banks have been used on an experimental basis to develop tests in reading and mathematics in the Portland (Oregon) Public Schools and in language arts in North Clackamas (Oregon) Public Schools.

Related Materials:

- Tri-County Goal Development Project Course Goal Collections (See page 119)

Ordering Information:	Write:	Dr. Fred Forster, Executive Secretary Northwest Evaluation Association 631 N.E. Clackamas Portland, Oregon 97208 (503) 234-3392

Title:	Clark County Criterion-Referenced Tests
Descriptor:	A set of criterion-referenced tests in mathematics and reading
Originator:	Clark County School District, Las Vegas, Nevada
Intended Users:	Teachers and evaluation specialists who are acquainted with behavioral objectives in reading and mathematics as provided in Clark County School District curriculum guides
Purpose/ Content:	The tests are designed specifically to measure behavioral objectives as written in curriculum guides for reading and mathematics.
Usefuless Related to CBE:	When used in conjunction with appropriate curriculum guides from the district, these instruments provide the teacher with a means of measuring an individual student's performance as stated in written educational objectives.
History of Development:	Test items were constructed relating to objectives written in curriculum guides provided by the district (See page 213). As tests were produced they were sent to CTB/McGraw-Hill and edited, based on well-established rules for writing test items. A testing sample of district students was chosen for field testing. They were tested twice. Pre- and posttest performance were analyzed and items checked to determine the success of instruction. CTB/McGraw-Hill and school district personnel used these data to evaluate items individually, selecting two items per objective for the final version.
Related Materials:	• Mathematics Curriculum Guide K-6 (See page 221) • Reading Guide and Selected Multimedia 1-12 (See page 229)

Ordering Information:	Write:	D.L. Bundren, Director Research and Development Department Clark County School District 2832 East Flamingo Road Las Vegas, Nevada 89121 (702) 736-5011
	Cost:	The cost of individual tests is included with each description.

The following pages include descriptions of individual Clark County Criterion-Referenced Tests.

Title: Clark County Mathematics Tests

Descriptor: Tests which assess student mastery of behavioral objectives as provided in the Clark County Mathematics Curriculum Guide K-6 (See page 221)

Publication Date(s): 1974

Originator: Clark County School District, Las Vegas, Nevada

Intended Users: Classroom teachers

Purpose/ Content: The tests consist of levels B-G, each one including one test book per student and one Examiner's Manual. The tests are not timed and should be administered in three sittings on different days as follows: Sitting I--Practice Test, Sitting II--Part One and Sitting III--Part Two.

Usefulness Related to CBE: See page 387

History of Development: See page 387

Related Materials: See page 387

Ordering Information: See page 388

Cost:		
	Level B, Grade 1	$1.00
	Level C, Grade 2	1.00
	Level D, Grade 3	1.00
	Level E, Grade 4	1.00
	Level F, Grade 5	1.00
	Level G, Grade 6	1.00

Title:	Mathematics Management Placement Test: Grade 3-6
Descriptor:	A test of elementary mathematics skills to assist teachers with student diagnosis
Publication Date(s):	No date given
Originator:	Clark County School District, Las Vegas, Nevada
Intended Users:	Classroom teachers
Purpose/ Content:	Only the most difficult skills are included, and breakdown ranges are identified to show where a student should begin using the *Mathematics Management System Diagnostic Step Tests* (see following entry). The test is not timed and should be administered in at least two sittings.
Usefulness Related to CBE:	See page 387
History of Development:	See page 387
Related Materials:	See page 387
Ordering Information:	See page 388 Cost: $1.00

Title:	**Mathematics Management System Diagnostic Step Tests**
Descriptor:	Forty-eight tests which help the teacher diagnose and identify specific skills
Publication Date(s):	June 1975 (Revised Edition)
Originator:	Clark County School District, Las Vegas, Nevada
Intended Users:	Classroom teachers
Purpose/ Content:	Most of the skills are tested with three items and are included in six strands or major areas of mathematics: number, numeration, operations, geometry, measurement and problem solving. The tests are not timed and require only one sitting. Materials include one test book per student and one Examiner's Manual.
Usefulness Related to CBE:	See page 387
History of Development:	See page 387
Related Materials:	See page 387
Ordering Information:	See page 388 Cost: $35.00

Title:	Basic Mathematics Competency Test (Grades 7 and 8)
Descriptor:	A multiple choice test used to diagnose student weaknesses in mathematics skills needed for survival in adulthood
Publication Date(s):	1974
Originator:	Clark County School District, Las Vegas, Nevada
Intended Users:	Classroom teachers
Purpose/ Content:	There are 46 multiple choice questions which are normally completed in one hour (no time limit is set, however). The test was locally developed to measure skills which were seen essential to function in our society.
Usefulness Related to CBE:	See page 387
History of Development:	See page 387
Related Materials:	See page 387
Ordering Information:	See page 388 Cost: $1.00

Title:	Experimental Procedures Used to Field Test Mathematics Criterion-Referenced Tests for Clark County, Nevada
Descriptor:	A detailed description of steps taken toward quality control evaluation of items in mathematics tests
Publication Date(s):	1974
Originator:	Clark County School District, Las Vegas, Nevada
Purpose/ Content:	The description provides discussion of the following: production of the testing instruments; instrument characteristics and measurement issues; analysis of pretest and posttest data; test data and item selection. It also includes exhibits of data gathered and samples of the pretest and posttest.
Usefulness Related to CBE:	See page 387
History of Development:	See page 387
Related Materials:	See page 387
Ordering Information:	See page 388 Cost: $4.00

Title: Clark County Reading CRT, Grades 2-4

Descriptor: A test designed to measure student competency of specified behavioral objectives provided by the district

Publication Date(s): 1973

Originator: Clark County School District and Westinghouse Learning Corporation

Intended Users: Classroom teachers

Purpose/ Content: Test items are keyed to certain objectives listed in the Clark County School District Reading Guide and Selected Multimedia 1-12 (See page 229).

Materials include one test book per student and one Administrator's Manual. The test is not timed and is recommended to be administered in three sittings, one for each part.

Usefulness Related to CBE: See page 387

History of Development: See page 387

Related Materials: See page 387

Ordering Information: See page 388

Cost:		
	Grade 2	$1.00
	Grade 3	1.00
	Grade 4	1.00

Title: Reading Management System Placement Test

Descriptor: Three multiple-choice, criterion-referenced elementary reading skills tests designed to assist the teacher in student diagnosis

Publication Date(s): 1975 (Revised); 1973

Originator: Clark County School District, Las Vegas, Nevada

Intended Users: Classroom teachers

Purpose/ Content: There are three placement tests, each accompanied by a Teacher's Manual. These tests are to be used in conjunction with Reading Management System Diagnostic Step Tests (See page 403). Each one covers one group of reading skills, identified in the Reading Management System Diagnostic Step Tests as follows: Placement Test #1 covers those skills from Step 1 through Step 28, Placement Test #2 covers Step 1 through Step 37 and Placement Test #3 covers Step 1 through Step 42.

Three factors were considered in choosing test items: (1) difficulty, (2) importance and (3) good field test data.

Scores on these tests show the range where a student is breaking down, e.g., step range 7-10. The teacher then begins to diagnose that pupil's specific strengths and weaknesses using any of the Reading Management System Diagnostic Step Tests in that range.

Usefulness Related to CBE: See page 387

History of Development: See page 387

Related Materials: See page 387

Ordering Information: See page 388

Cost:	Level One	$3.00
	Level Two	3.00
	Level Three	3.00

Title: Reading Management System Diagnostic Step Tests

Descriptor: Criterion-referenced tests (42) which help the elementary teacher diagnose and identify specific skills

Publication Date(s): January 1975 (Revised Edition)

Originator: Clark County School District, Las Vegas, Nevada

Intended Users: Elementary teachers

Purpose/ Content: Directions are provided for developing answer sheet readiness, scoring answer sheets and test administration.

Usefulness Related to CBE: See page 387

History of Development: See page 387

Related Materials: See page 387

Ordering Information: See page 388

Cost: $35.00

Title: Project TORQUE: A New Approach to the Assessment of Children's Mathematical Competence

Descriptor: Project TORQUE is developing criterion-referenced, diagnostic achievement tests in mathematics for the elementary school grades. (Note: It is an ongoing research; development effort started in 1974.)

Publication Date(s): Pilot use of the TORQUE computational materials will begin in the fall of 1978 in a limited number of communities.

Originator: Education Development Center, Inc., Newton, Massachusetts

Intended Users: Any elementary teacher seriously concerned about moving toward criterion-referenced diagnostic testing in mathematics. School principals will also find these materials helpful in gaining some insight into the strengths and weaknesses of their mathematics program.

Purpose/ Content: In planning and design of TORQUE materials the following criteria are paid attention to:

- Flexibility to accommodate individual children's styles
- Minimal dependence on specific cultural, ethnic or linguistic backgrounds, i.e., very little need for "ambient knowledge"
- Little need for reading, with unavoidable reading made as easy as possible
- Response systems that eliminate students' bookkeeping on separate answer sheets
- Diagnostic value--maximum usefulness to the classroom teacher
- Instruments that can be made public with no decrease in test value
- Techniques that engage students' full efforts without threats and with minimum anxiety

A central feature of the TORQUE approach to these criteria is the source of the test items: specially designed games and activities that yield information about students' mathematical understandings.

The game is what TORQUE calls a Validating Instrument: an activity whose main purpose is to validate a set of test items measuring the same concept or skill.

Purpose/ Content: (Continued)

The model of test development basic to Project TORQUE is:

1. Develop a game to test for understanding of a particular mathematical concept or mastery of a particular mathematical skill.
2. Test the game extensively in a "clinical" tryout: observe children playing it, listen to their conversations, talk with them--overall, be sure the game is appealing and that it detects the concept or skill in question. Games that pass this stage successfully become Validating Instruments.
3. Starting with the game, devise a shorter, written-record Diagnostic Achievement Test that teachers can administer and score on a wide scale. Try out the diagnostic Achievement Test clinically and then with many students.
4. Give both the Validating Instrument and the Diagnostic Achievement Test to a large sample of students and analyze the results: if students who do well on one also do well on the other, the Diagnostic Achievement Test is probably assessing the skill.

All of TORQUE's work involves children who prescreen the mathematics games, activities and tests both in clinical settings and in regular classrooms. More than 2,000 children have been involved in the field testing of games and tests. One-third of these children are Black, one-third are Latino and one-third are White, from both urban and suburban schools.

In short, TORQUE is an effort to develop tests that are humane, involving, fair and useful. Achieving these goals means careful design, extensive (and sensitive) tryouts with many students and direct advice from both children and teachers who are best able to guide TORQUE toward instruments that meet real needs in realistic ways.

TORQUE is an acronym for Tests of Reasonable Quantitative Understanding of the Environment. The project is supported by grants from Carnegie Corporation of New York and the Ford Foundation.

Usefulness Related to CBE:

Both the Diagnostic Achievement Tests and the Validating Instruments will yield results that are criterion-referenced rather than norm-referenced.

Related Materials: Available on request: a descriptive information booklet with sample materials reproduced: "Project TORQUE--A New Approach to the Assessment of Children's Mathematical Competence."

Ordering Information: Write: Robert C. Hayden
Education Development Center, Inc.
55 Chapel Street
Newton, Massachusetts 02160
(617) 969-7100, Ext. 36

Cost: Not available for purchase at this date.

Title: The Adult APL and the High School APL Survey

Descriptor: A test designed to survey functional competency of adults or high school students in five areas relevant to everyday living

Publication Date(s): 1976

Originator: The ACT Educational Services Division in conjunction with the University of Texas at Austin and the United States Office of Education

Intended Users: Teachers and administrators seeking a survey of adult or student functional competency

Purpose: According to the developers, the purpose of the survey is "to measure the proficiency of both young and mature adults in skills necessary for minimal levels of educational and economic success in American society."

Content: The survey is designed to measure the functional competency of adults and/or students in the areas of community resources, occupational knowledge, consumer economics, health, government and law. The survey, in addition to measuring functional competency, measures the skills of fact and item identification, reading, writing, computation and problem solving. Specific items of this survey are keyed to a defined set of goals and objectives in each content area so that test administrators can assess competency on an objective-by-objective basis. The survey is the first of six tests being produced by ACT. The tests still under development measure indepth functional competency in each of the five content areas.

The survey is available in two forms, one for use with adults and one for students. Materials include an answer sheet and survey booklet per adult or student. The test is not timed, although it is suggested that for planning purposes an hour and fifteen minutes be allotted for administering it.

Usefulness Related to CBE: When used in conjunction with the APL Goals and Objectives, the survey provides teachers and administrators with a means of measuring student and/or adult performance on specific written objectives relevant to everyday living.

History of Development: The University of Texas at Austin was funded by the U.S. Office of Education to develop (1) a set of competencies which reflects the skills which ensure educational and economic success in American society and (2) the means for measuring those competencies in the adult population. The first step consisted of constructing a general theory of functional competency and a taxonomy of associated performances. Once this had been accomplished, the research team set about defining objectives and performance indicators of functional competency in the five areas previously described. These were field tested and revised until consensus was reached and each objective correlated positively with the success indicators of income, job status and education.

Interview schedules were developed from the performance indicators which were administered to a representative sample of the adult population. Data which resulted were used to identify levels of functional competency in American society.

ACT in 1975 obtained the rights to the APL materials. ACT field tested paper and pencil forms of the interview schedules on adult and high school populations in both Los Angeles and Detroit. These test results were used in developing the norming forms of the APL survey. During this same time period the goals and objectives were reviewed and revised by APL in conjunction with the research team from the University of Texas.

The norming form was administered to approximately 4,000 adult education students and 4,000 eleventh and twelfth grade students. Samples were selected from four geographic regions and from communities defined into five categories. Data from these administrations are reported in the User's Guide.

Related Materials: The APL Content Area Measures (CAMS) See page 413)

Ordering Information:

Write:

APL Department
The American College Testing Program
P.O. Box 168
Iowa City, Iowa 52240

Cost:

Survey Booklet	$31.25 pkg./25
Machine Scorable Answer Sheet	2.75 pkg./25
Hand Scorable Answer Sheet	6.75 pkg./25
Adult APL User's Guide	1.50 each
Adult APL Specimen Set	2.75 each

Title: The APL Content Area Measures (CAMS)

Descriptor: Five indepth objectives-based content area tests designed to measure life skills proficiency of young and mature adults

Publication Date(s): 1977

Originator: The American College Testing Program, Iowa City, Iowa

Intended Users: Classroom teachers and administrators seeking measures of individual competency, group progress and program effectiveness

Purpose/ Content: According to the developers,"ACT has developed five Content Area Measures: one each in Community Resources, Occupational Knowledge, Consumer Economics, Health, and Government and Law. Each Content Area Measure is an indepth assessment of skills and knowledge in the given area and gauges specific strengths and weaknesses within that area. Each measure contains three items per identified objective; thus, the measures vary in length from 42 to 66 items, for a total of 249 items in all five Content Area Measures."

"Items involve everyday problems and feature attractive graphic representations and facsimiles of familiar objects. Items have been written in short, simple sentences which maintain a third to fourth grade reading level without sacrificing clarity and logic."

Items are keyed to specific objectives and tasks. No special training is needed for test administration, and the test is not timed. Information about administration and interpretation is provided in the User's Guide. Survey booklets are reusable, and hand- and machine-scorable answer sheets are available.

Usefulness Related to CBE: These five objectives-based tests serve to measure competencies in five life skill areas. They would be particularly useful where the objectives are parallel or identical to those being used in the classroom or school district.

History of Development: The 83 specific objectives were set in a matrix with the five skill areas of (1) identification of facts and terms, (2) reading, (3) writing, (4) computation and (5) problem solving. Test items for the resulting cells were written by both outside and inhouse item writers in accordance with a guide developed for that purpose. These items were incorporated into sixteen pretest forms which were administered in April of 1977 to some 16,460 subjects. Approximately 4,500 adults and 10,800 high school students (approximately 2,700 at each grade level, 9-12) were tested. Populations were selected from four geographical areas across the United States and from five community types defined by population. Data which resulted were utilized in selecting 249 items from the original 415. These selected items are not apportioned among the five content area tests. Additional details of test development activities and resulting data are reported in the User's Guide.

Related Materials: The APL Survey (See page 409).

The APL program also will provide state departments of education, school districts and other institutions concerned with minimal competency assessment with customized APL instruments, scoring, reporting services and data analysis tailored to their requirements.

Ordering Information: Write:

Director, APL Program
The American College Testing Program
P.O. Box 168
Iowa City, Iowa 52240
Telephone: (319) 356-3943

Cost: Content Area Measures

Measures Booklets	$37.50 pkg./25
Hand Scorable Answer Sheets	6.75 pkg./25
User's Guide	1.50 each

Title: IOX Basic Skill Tests: Secondary Level

Descriptor: Criterion-referenced tests in three subject areas: reading, writing and mathematics

Publication Date(s): Available late spring 1978

Originator: Instructional Objectives Exchange (IOX)

Intended Users: The tests are designed for use at the secondary level.

Purpose/ Content: The tests focus on three subject areas:

- Reading Skills
  1. Understanding Safety Warnings
  2. Completing Forms and Applications
  3. Using Common Reference Sources
  4. Determining Main Ideas
  5. Using Documents to Take Action
- Writing Skills
  1. Taking Accurate Messages
  2. Checking Mechanics in Written Communication
  3. Using Words Correctly in Written Communication
  4. Composing Correct Sentences in Written Communication
  5. Expressing Ideas in Writing (Student Writing Sample)
- Mathematics
  1. Performing Basic Mathematical Calculations
  2. Solving Everyday Problems Requiring Single Arithmetic Operations
  3. Solving Everyday Problems Requiring Formulas
  4. Solving Everyday Problems Requiring Multiple Arithmetic Operations

Each test set consists of the following:

- Test Booklets--two forms of each test provide a total of ten test items per skill. The test booklets are reusable.
- Test Manual--provides directions for administration and discusses test content and test development procedures
- Teacher's Guide--includes instructional guidelines and precise skill description

Purpose/ Content: (Continued)

- Scoring System--each set contains answer sheets and answer keys for hand or machine scoring and criteria and techniques for scoring student writing samples
- Optional Technical Supplements--detailed test descriptions are available for the creation of additional test items

Usefulness Related to CBE:

Because of the ready-to-use format of these tests, they will undoubtedly be a time-saver for the classroom teacher. Exposure to these tests through use in the classroom may be helpful to the teacher in developing other tests as needed using the IOX format. The IOX Basic Skills Tests are designed to serve as one of several graduation requirements for high school students.

History of Development:

In 1968 IOX began making booklets which contained collections of measurable instructional objectives and related test items available to schools. The next step was to provide readily used support materials, specifically objectives-based tests.

The development procedures described indicate that after category and content general objectives have been selected, a teacher is brought in from the field to spend a day reviewing the test. After this, the forms are developed and another review is made by another practicing educator, typically a teacher with subject expertise. Members of the staff (other than those who developed the tests) administer the test as a tryout with a limited number of students. Revisions are made on the basis of this field test. Emphasis is not on extensive field tests with reliability and validity coefficients. Instead, the strategy emphasizes content validity with respect to the match between test items and the amplified objectives which they are designed to measure.

Related Materials:

- Procedural Guidelines--Developing IOX Objectives-Based Tests, Technical Paper No. 8, W. James Popham, August 1972
- IOX Objectives-Based Test Collections (See page 381)

Ordering Information:	Write:	Instructional Objectives Exchange P.O. Box 24095 Los Angeles, California 90024
	Cost:	$1.10 per test booklet* (Form A or B) One free test manual accompanies each set of 50 tests ordered.
		$1.95 for additional test manuals $6.00 for a package of 50 answer sheets $1.95 for each Teacher's Guide*
		*Covers only one subject area

Title: Assessment Instruments in Bilingual Education: A Descriptive Catalog of 342 Oral and Written Tests

Descriptor: A systematic compilation of 342 currently available tests for use in bilingual education programs ranging from preschool to adult. Thirty-eight languages are represented.

Publication Date(s): Scheduled for Fall 1978

Originator: Northwest Regional Educational Laboratory (NWREL), Portland, Oregon

Intended Users: School administrators, building principals, teachers, directors and coordinators of bilingual education programs, evaluation specialists and parents

Purpose: Goals: The goal of the catalog is to provide a starting point in the area of student assessment for those people concerned with providing useful educational services to bilingual student and adults.

Objectives: The catalog will supply educators and others with a knowledge base and resource information useful in program planning and student assessment.

Content: Ths catalog contains a systematic listing of 342 currently available assessment instruments appropriate for bilingual education programs that span preschool through adult education. Thirty-eight different languages are represented in the collection. Teachers and others will be able to screen tests on the basis of their own program objectives and will know generally what tests are available to meet their specific needs.

The document is organized into eight chapters and one appendix. Major categories are:
1. Language Proficiency
2. Language Dominance
3. Self-Concept and Personality
4. Socio-Cultural
5. Reading and Reading Readiness
6. General Achievement
7. Aptitude and Interests
8. Miscellaneous

Usefulness Related to CBE: Student assessment is a critical aspect in the establishment and monitoring of learning goals. This catalog is designed to be a reference for educators seeking information regarding assessment instruments for bilingual students. The instruments may be used in most educational settings, including competency based programs.

History of Development: This publication, Assessment Instruments in Bilingual Education: A Descriptive Catalog of 342 Oral and Written Tests, has been developed as a direct result of field tests which might be used in bilingual education programs. The tests described in the catalog were identified through a national and international literature search for instruments applicable in bilingual settings. The book was reviewed at various stages by both NWREL personnel and by practitioners in several states who are concerned with bilingual education.

Related Materials:

- Oral Language Tests for Bilingual Students: An Evaluation of Language Dominance and Proficiency Instruments, Northwest Regional Educational Laboratory, Portland, Oregon

Ordering Information: Copies of the catalog and price/ordering information will be available from:

National Dissemination and Assessment Center
ESEA, Title VII
California State University, Los Angeles
5151 State University Drive
Los Angeles, California 90032

MEASURES: SELECTION PROCEDURES

Title:	CSE Summative Evaluation Kit
Descriptor:	An instructional kit for anyone involved in carrying out program evaluation
Publication Date(s):	1974 (A new edition will be available in late 1978)
Originator:	Center for the Study of Evaluation (CSE), Graduate School of Education, University of California, Los Angeles
Intended Users:	Anyone given the task of designing and carrying out a program evaluation, e.g., a classroom teacher, a principal, a director of specially funded programs or a district evaluator
Purpose:	Goals: The main goals of this kit are both procedural and substantive. The kit is intended to improve practice in evaluation by providing local practitioners with step-by-step procedures for accomplishing their own evaluations. Use of the kit should make local evaluators more independent of outside consultant help and educate them about the procedures needed to perform a summative evaluation. Since the kit contains a substantial amount of conceptual information, its use should make the practitioner more conversant with major concepts and issues in evaluation and measurement. In addition to its directive function, the kit can and has been used as the basis of workshops and whole courses on the topic of evaluation and educational research. Objectives: There are no objectives specifically stated for the kit.
Content:	The kit is a set of procedural guides containing step-by-step instructions for accomplishing major tasks involved in conducting a program evaluation, e.g., planning the evaluation, articulating goals, selecting a design and measuring achievement. The kit contains an audiotape which describes evaluation tasks and which is designed to change attitudes--or at least ease apprehension--toward evaluation.
Usefulness Related to CBE:	The kit would be useful for planning and conducting evaluation of a CBE Program. In addition to purely summative evaluation, the kit has been used extensively by formative evaluators and by persons conducting needs assessments.

History of Development: Many of the procedures described in the kit have been demonstrated to be generalizable over a wide range of evaluation-related tasks. The kit's introductory tape has been used in some settings as an introduction to evaluation for program personnel and evaluation staff. The line drawing illustrations from the accompanying booklet have lent themselves to easy reproduction on overhead transparencies. Though the kit is part of the CSE Elementary School Evaluation Kit Series, its procedures, with little modification, have been used in secondary and even noneducational settings.

Main Activities: Users of the kit listen to an introductory tape which describes the CSE Evaluation Model, discusses the value of evaluation as a basis for rational decision making in the schools, outlines the roles an evaluator might assume and discusses the use of design in evaluation. An accompanying booklet illustrates the concepts described in the tape. The tape assists the user to use one of two step-by-step guides to direct the planning and execution of evaluation. The "Step-by-Step Guide for the Evaluation of Pull-Out Programs" fits evaluation situations where a set of preconditions including defining target groups and program cycles can be met. It then directs the conduct of an entire evaluation, start to finish, providing statistical test procedures and a final report outline to fit the design used. The longer "Step-by-Step Guide for Conducting a Summative Evaluation" is designed to fit any program evaluation situation. Its user fills out worksheets defining the program and requesting the results of evaluation activities. At points in the Guide where expertise is needed to make a decision or where a particular procedure needs to be carried out (such as selecting an evaluation design or constructing a criterion-referenced test) the user is referred to one of the kit's eight "How-To" booklets. These booklets cover the following topics:

1. How to Select a Design, Display and Interpret Results
2. How to Randomize
3. How to Articulate Goals, Outcomes and Objectives
4. How to Measure Achievement
5. How to Measure Attitudes
6. How to Document the Program
7. How to Calculate Statistics and Also Understand Them
8. How to Present an Evaluation Report

Main Activities: (Continued)

The "How-To" booklets contain step-by-step procedures for performing program evaluation tasks and provide nontechnical background information concerning why and what the procedures accomplish. They also provide advice for overcoming logistical and attitudinal stumbling blocks often encountered in evaluation and measurement.

Using the Step-by-Step Guides, the "How-To" booklets, an accompanying Measurement Wall Chart and a Handy Randomizing deck of cards, the kit user can engage in every activity needed for a program evaluation. On the other hand, a person who does not need extensive guidance in conducting an evaluation or whose task is either formative evaluation or merely the design of a measurement instrument can easily use the kit as a reference source, consulting Guides and "How-To" booklets to meet particular needs.

Provisions for Use:

Format: Can be used as a self-help tool in on-the-job situations by groups or individuals entrusted with an evaluation, or it can be used as a training tool in a workshop or course setting.
Personnel: The kit requires no one to assist the on-the-job user. Courses and workshops using the kit should be run by someone with some evaluation and/or measurement training.
Product Components: The entire 10-booklet set with ancillary materials is best used intact.
Time Span: Time span and extent of kit use is completely determined by the user.

Conditions of Use:

Kit users in on-the-job settings should have a commitment to spending time conducting a quality evaluation.

Kit users are expected to have mastered basic algebra and have available a tape cassette player and a hand calculator.

Though designed for on-the-job use, the kit can be adopted as a course or workshop text. Use of the kit in this manner demands that the instructor be familiar with the kit's contents, have some minimal training in issues and concepts in program evaluation, measurement and educational research and have the commitment and ability to structure workshop experiences or college courses.

Related Materials:	- CSE Elementary School Program Planning Kit (in press)
Ordering Information:	Write: CSE Field Services Center for Study of Evaluation School of Education UCLA Los Angeles, California 90024
	Cost: $35.00

This description was adapted from Educational Dissemination and Linking Agent Sourcebook.

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MEASURES: DEVELOPMENTAL INSTRUCTIONS

Title:	Curriculum and Instruction: Planning Improvement
Descriptor:	A training package to assist school personnel in identification of suitable and feasible program improvements
Publication Date(s):	No date given
Originator:	Research for Better Schools, Inc. (RBS)
Intended Users:	School district administrators and teachers working as a team
Purpose:	Goals: This workshop model is intended to provide a means for identifying feasible curriculum improvements suitable for the school district. Objectives: The main objectives include: ● Team carries out complete process of identifying means of curriculum improvement. ● Means of improvement identified are compatible with school or district requirements.
Content:	The package includes procedural guides, work aids and examples adopted from actual school district practices. Staff attention is focused on defining student needs, determining improvement requirements and searching for means of improvement. The workshops also provide staff development experiences.
Usefulness Related to CBE:	This product would be most useful for revising instruction to correspond with student outcomes after outcomes and performance measures have been established.
History of Development:	Information is not available.
Main Activities:	● Team clarifies student needs ● Team establishes requirements for curriculum improvement ● Team plans and conducts search for alternative means of improvement

Provisions for Use:

Format: Team participants work as a group in on-the-job situations.

Personnel: A group coordinator and three to six participants. No special expertise is required.

Product Components:

- Curriculum and Instruction: Planning Improvement. Contains three sections: Defining Student Needs, Establishing Improvement Requirements and Planning and Conducting the Search. A separately bound Planning Coordinator's Manual is also included.
- Curriculum and Instruction: A Guide to Alternatives. Contains three separately bound annotated listings of various information sources which may be consulted in a search for student learning materials, staff development programs and/or resource allocation methods. Some specific staff development programs and resource allocation methods are also described. A master index is provided.

Time Span: About 25 hours is needed for an individual to read the materials and from two to three months for a team to carry out a planning project.

Conditions of Use:

The package is intended for on-the-job applications. A team approach is strongly recommended but not required. A typical team may include a group coordinator (often a curriculum coordinator), one or two district/school administrators, one or two teachers and perhaps a librarian. Release time is necessary to complete staff work.

The package has been used in a five-day workshop mode; however, additional time is required to conduct the search. The workshop requires the leadership of someone familiar with the approach. The package has been used by school districts with and without outside assistance.

Related Materials:

- Handbook of Comprehensive Planning in Schools (See page 259)
- Selecting a Curriculum Program: Balancing Requirements and Costs (See page 533)

Ordering Information:

Write: Research for Better Schools, Inc.
1700 Market Street
Philadelphia, Pennsylvania 19103

Cost:

Curriculum and Instruction: Planning Improvement (One per participant is suggested)	$10.00/set
Curriculum and Instruction: A Guide for Alternatives (One per group is suggested)	$12.00/set

This description was adapted from *Educational Dissemination and Linking Agent Sourcebook*.

Title:	Evaluating a Curriculum Program: An Educator's Handbook
Descriptor:	A workshop to teach school personnel to evaluate curriculum programs
Publication Date(s):	No date given
Originator:	Research for Better Schools, Inc. (RBS)
Intended Users:	School district administrators and teachers working as a team
Purpose:	Goals: This product focuses on planning and carrying out evaluation of a curriculum program. Objectives: The objectives are for a team to: ● Plan and carry out evaluation ● Recommend modification, spread or termination of the curriculum program
Content:	Participants are instructed in the areas of planning and evaluation, developing and applying evaluation methods and reporting results. Materials provide procedural guides, work aids and examples adapted from actual school district practices. Materials have been used by school districts with and without outside assistance.
Usefulness Related to CBE:	This product can be used to help teachers learn to evaluate CBE instructional programs.
History of Development:	Information is not available.
Main Activities:	● Team describes program to be evaluated ● Team develops evaluation questions ● Team prepares data collection and analysis specifications ● Team prepares evaluation plan ● Team carries out evaluation plan ● Team reports findings and makes recommendations
Provisions for Use:	Format: Team participants work as a group in on-the-job situations.

Provisions for Use: (Continued)

Personnel: A project manager and three to six participants. Some consultant expertise may be needed.
Product Components: Book I, Planning an Evaluation Effort, contains four sections: Describing the Program, Developing Evaluation Questions, Preparing Initial Specifications for Data Collection and Analysis, and Summarizing and Reviewing the Planning Effort. Book II, Guidelines for Conducting an Evaluation, contains four sections: Planning Data Collection and Analysis, Collecting the Data, Processing the Data, and Interpreting the Data and Reporting the Results.
Time Span: About ten hours are needed for an individual to read materials and about one school year for a team to carry out an evaluation project.

Conditions of Use:

Materials are intended for on-the-job applications. A team approach is recommended. A typical team may include a project manager (often a central office administrator, evaluator, curriculum coordinator or principal), someone with evaluation experience, principals and teachers. Release time is necessary to complete staff work.

This program has been used by individuals working independently, but could be used in a five-day workshop mode. The workshop would require leadership of a seasoned evaluator.

Related Materials:

- CSE Elementary School Test Evaluations (See page 467)
- CSE Secondary School Test Evaluations (See page 465)
- CSE-ECRC Preschool/Kindergarten Test Evaluations (See page 469)
- CSE-RBS Test Evaluations: Tests of Higher Order Cognitive, Affective, and Interpersonal Skills (See page 463)

Ordering Information:

Write: Research for Better Schools, Inc.
1700 Market Street
Philadelphia, Pennsylvania 19103

Cost: $9.00 per copy

One copy per participant is suggested.

Release time, data processing support and consultant assistance are additional costs.

This description was adapted from Catalog of NIE Education Products and Educational Dissemination and Linking Agent Sourcebook.

Title: Evaluation for Program Improvement

Descriptor: A training package in program evaluation

Publication Date(s): 1975, 206 pp. (*Participant's Handbook*). Approx. 300 pp. (*Coordinator's Handbook*) plus annotated bibliographies

Originator: Richard W. Watkins, Earl Mortensen and Diana P. Studebaker, Educational Management Program, Far West Laboratory for Educational Research and Development (FWL)

Intended Users: School personnel and district community members concerned with instructional program management and evaluation

Purpose: *Goals*: According to the authors the main goal of this product is: "to help instructional program managers develop the knowledge or skills necessary to identify, collect, organize, and analyze information useful in making decisions about program modification." The intent is not to train participants to be specialists in program evaluation but rather to foster an understanding of what program evaluation is and how it contributes to a school district.

Objectives: None

Content: The authors describe the following five topics:

- Identifying decisions to be made about program modification which are both necessary and feasible and specifying who makes these decisions
- Identifying alternative courses of action for decisions in the instructional management area
- Determining what information is relevant to modification decisions
- Taking responsibility for or contributing to a plan for collecting, organizing and analyzing program modification information
- Using information about program effectiveness to modify instructional programs

Usefulness Related to CBE:	This package helps participants learn to evaluate instructional programs on the basis of achievement of measurable objectives. It could be useful in orienting instructional personnel and others in a CBE context to the main issues of program evaluation.
History of Development:	This training package is one of six independent but related units that make up the Far West Laboratory's Educational Management Program. Development of this product began in 1973 in response to a perceived need of school instructional staff in the area of program evaluation. A prototype version was tested in fall 1973 in a university course and a revised prototype was tested with teachers in spring 1974. Field testing was conducted during the summer and fall of 1974. Overall, 64 participants, including teachers, administrators and counselors, used some or all of these materials in the four tests.
Main Activities:	Participants using these materials engage in five workshop sessions. Each session is structured around one of the five topics previously described. Much of the workshop is devoted to simulation activities which acquaint participants with the main issues of program evaluation. Interspersed among the simulations are readings, worksheets and discussion and feedback sessions. Bibliographies and reading lists indicate sources of further information on selected topics for participants.
Provisions for Use:	Format: The product is designed to be used in a workshop conducted by a workshop coordinator. Personnel: This package is designed for between six and 25 participants plus a workshop coordinator. The coordinator needs no special training, since the Coordinator's Handbook provides specific instructions for persons preparing to conduct the workshop. Product Components: Participant's Handbook, Coordinator's Handbook, transparencies, filmstrip and cassette tape. Time Span: The material in this program can be handled flexibly but ideally requires at least 15 hours, organized into five three-hour sessions. The Coordinator's Handbook describes alternatives for 13½ hours, 12½ hours and a three-hour overview. Preparation by the coordinator will require approximately 10-15 hours prior to the workshop, about three hours for each session and two to five hours after the workshop.

Conditions of Use:	Substantial time (at least a month) should precede the use of this material with a school staff in order that preparations for release time, substitutions, etc., may be made. Although the material may be covered in a concentrated fashion, for example, over a weekend, it would be preferable to space the workshop over a longer period of time.
Related Materials:	None
Ordering Information:	Copies of the product are available from: Far West Laboratory for Educational Research and Development 1855 Folsom Street San Francisco, California 94103 Costs are: Coordinator's Handbook, transparencies, filmstrip and audiotape: $34.95 (reusable) Participant's Handbook, $7.95 per copy. A copy is needed by each participant.

Title:	Writing Tests Which Measure Objectives #29
Descriptor:	A filmstrip-tape program for teachers which describes the item form approach in devising measures which match objectives
Publication Date(s):	1972
Originator:	Eva L. Baker, Graduate School of Education, UCLA
Intended Users:	Prospective as well as experienced teachers who are concerned with improving their teaching proficiency
Purpose:	Goals: None stated Objectives: The author states that at the end of the program the learner should be able to: 1. Generate a list and brief description of each dimension of an item form 2. Inspect an item generated from a set of item form specifications and indicate where, if at all, deviations in the item occur 3. Given an item form, generate an item which adheres to the specifications
Content:	The item form approach to test writing includes the following elements: response description, content limits, item format, criteria, directions and sample item.
Usefulness Related to CBE:	The filmstrip advocates measurable skills which can be used to achieve identifiable competencies.
History of Development:	All materials developed for VIMCET have been field tested and revised. However, this particular product carries no description of how or where this was done.
Main Activities:	Learners view a filmstrip and make responses on an answer sheet. However, followup activities depend on individual group needs. In an inservice, teachers and administrators may discuss the program in an after school session. For preservice courses, the filmstrip may be used as an adjunct to courses in curriculum.

Main Activities: (Continued)

Regardless of the user group, each participant is required to take the examination which may be used as a pretest and/or a posttest.

During the filmstrip showing, viewers need a copy of the answer sheet on which they are asked to "make discriminations along multiple dimensions."

Provisions for Use:

Format: Used best to supplement a course or workshop focusing on the area of curriculum.
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- An illustrated filmstrip, typically 30-40 frames
- Accompanying audiotape (reel-to-reel or cassette)
- Instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audiotape narration is approximately 30 minutes in length.

Conditions of Use:

Teachers involved in this program should have developed a systematic approach to test item writing as related to predetermined behavioral objectives.

Related Materials:

Other VIMCET programs which treat this area of evaluation:

- Current Conceptions of Educational Evaluation #23 (See page 445)
- Alternative Avenues to Educational Accountability #22 (See page 437)
- Alternative Measurement Tactics for Educational Evaluation #26 (See page 441)

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired. Order by title and program number. Two-week preview available for any two filmstrip programs.

Title: Alternative Avenues to Educational Accountability #22

Descriptor: A filmstrip-tape program for teachers which outlines the distinctions among personal, professional and public accountability

Publication Date(s): 1971

Originator: W. James Popham, Graduate School of Education, UCLA

Intended Users: Prospective as well as experienced teachers who are concerned with improving their teaching proficiency

Purpose:

Goals: None stated

Objectives: The author states that at the conclusion of the program the viewer will be able to:

1. Describe the three forms of educational accountability treated in the program, i.e., *personal*, *professional* and *public* accountability
2. Properly classify fictitious descriptions of alleged systems of educational accountability as (a) not a true accountability system or an instance of (b) personal, (c) professional or (d) public accountability
3. Describe one major strength and one major weakness of each of the three forms of educational accountability
4. Supply at least one new illustration of each of the three forms of educational accountability described in the program

Content: The filmstrip defines the three forms of educational accountability as:

1. Personal--a focus on self-improvement
2. Professional--a collegial improvement scheme
3. Public--an open statement of evidence

Usefulness Related to CBE: According to the author's description, this program is designed "to expand the viewer's range of alternatives regarding the meaning of educational accountability." The program advocates measurable skills which can be used to achieve identifiable competencies.

History of Development: The program was initially tested with small groups of two or three and later with a group of ten UCLA secondary educational candidates. Results of the testing were as follows: Part I: pretest 30 percent and posttest 90 percent; Part II: pretest 40 percent and posttest 90 percent; and Part III: pretest 20 percent and posttest 60 percent.

Main Activities: Learners view a filmstrip and respond on an answer sheet. However, followup activities depend on individual group needs.

In an inservice, teachers and administrators may discuss the program in an after school session. For preservice courses, the filmstrip may be used as an adjunct to courses in instruction.

Regardless of the user group, each participant is required to take a four-part examination which may be used as a pretest and/or a posttest. Each section is based on one of the measurable objectives for the program.

Provisions for Use: Format: Used best to supplement a course or workshop focusing on the area of evaluation.
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- An illustrated filmstrip, typically 30-40 frames
- Accompanying audiotape (reel-to-reel or cassette)
- Instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audiotape narration is approximately 30 minutes in length.

Conditions of Use: None

Related Materials: Other VIMCET products which treat the area of evaluation:

- Current Conceptions of Educational Evaluation #23 (See page 445)
- Alternative Measurement Tactics for Educational Evaluation #26 (See page 441)
- Writing Tests Which Measure Objectives #29 (See page 435)

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired. Order by title and program number. Two-week preview available for any two filmstrip programs.

Title:	Alternative Measurement Tactics for Educational Evaluation #26
Descriptor:	A filmstrip-tape program for teachers which describes a four-category system for generating measurement schemes
Publication Date(s):	1971
Originator:	W. James Popham, Graduate School of Education, UCLA
Intended Users:	Prospective as well as experienced teachers who are concerned with improving their teaching proficiency
Purpose:	Goals: None stated Objectives: The author provides two specific objectives for the program: 1. After viewing the program the learner will be able to distinguish between (a) events and/or procedures which can be legitimately employed educational criterion measures and (b) those which cannot be employed. 2. Upon completing the program the learner will be able to correctly classify examples of the four categories of measurement tactics treated in the program.
Content:	The measurement tactics discussed are: questionnaire, examination, archival data, observation scale and unobtrusive measure. Educational criterion measures encompass two major areas of consideration: (1) learner behavior and (2) learner product. Each of these is then considered from the standpoint of given conditions, i.e., whether manipulated or natural.
Usefulness Related to CBE:	The author points out that educators have a wide variety of measurement tactics available. This program describes some of the less traditional measures and advocates measurable skills which can be used to achieve identifiable competencies.

History of Development: This program was field tested in preservice and inservice situations for four years. Data are provided from a Minnesota workshop held in 1969 with experienced teachers and administrators. The author describes these as "typical of general results": Part I: pretest 71 percent and posttest 94 percent and Part II: pretest 32 percent and posttest 86 percent.

Main Activities: Learners view a filmstrip and respond on an answer sheet. However, followup activities depend on individual group needs.

In an inservice, teachers and administrators may discuss the program in an after school session. For preservice courses, the filmstrip may be used as an adjunct to courses in instruction and evaluation.

Regardless of the user group, each participant is required to take a two-part examination which may be used as a pretest and/or a posttest. Each section is based on one of the measurable objectives for the program.

Provisions for Use: Format: Used best to supplement a course or workshop focusing on the area of evaluation.
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- An illustrated filmstrip, typically 30-40 frames
- Accompanying audiotape (reel-to-reel or cassette)
- Instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audiotape narration is approximately 30 minutes in length.

Conditions of Use: None

Related Materials: Other VIMCET products which treat the area of instruction:

- Alternative Avenues to Educational Accountability #22 (See page 437)
- Current Conceptions of Educational Evaluation #23 (See page 445)
- Writing Tests which Measure Objectives #29 (See page 435)

Ordering Information:	Write:	Vimcet Associates, Inc. P.O. Box 24714 Los Angeles, California 90024	
	Cost:	Filmstrip-tape program	$18.00

Specify whether cassette or reel-to-reel tapes are desired. Order by title and program number. Two-week preview available for any two filmstrip programs.

Title: Current Conceptions of Educational Evaluation #23

Descriptor: A filmstrip-tape program for teachers which identifies and analyzes four important conceptual distinctions in educational evaluation.

Publication Date(s): 1971

Originator: W. James Popham, Graduate School of Education, UCLA

Intended Users: Prospective as well as experienced teachers who are concerned with improving their teaching proficiency

Purpose: Goals: None stated
Objectives: The author states that the learner should be able to make correct distinctions among dichotomies related to educational evaluation activities. These are:

1. Evaluation versus Measurement
2. Formative Evaluation versus Summative Evaluation
3. Use of Process Criteria versus Use of Product Criteria
4. Evaluation as an Assessment of Merit versus Evaluation as an Aid to Decision Making

Content: Written examples are provided in the filmstrip to accompany discussion of the four distinctions.

Usefulness Related to CBE: The program advocates measurable skills which can be used to achieve identifiable competencies.

History of Development: The program was field tested with ten graduate students at UCLA. The data which appear in the instructor's manual show the average pre- and posttest scores written respectively on each of the examination's four parts as follows: Part I: 70 percent and 90 percent; Part II: 60 percent and 100 percent; Part III: 60 percent and 90 percent; and Part IV: 80 percent and 100 percent.

Main Activities: Learners view a filmstrip and respond on an answer sheet. However, followup activities depend on individual group needs.

Main Activities: (Continued)

In an inservice, teachers and administrators may discuss the program in an after school session. For preservice courses, the filmstrip may be used as an adjunct to courses in instruction and evaluation.

Regardless of the user group, each participant is required to take a four-part examination which may be used as a pretest and/or a posttest. Each section is based on one of the four measurable objectives for the program.

Provisions for Use:

Format: Used best to supplement a course or workshop focusing on the area of evaluation.
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- An illustrated filmstrip, typically 30-40 frames
- Accompanying audiotape (reel-to-reel or cassette)
- Instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audiotape narration is approximately 30 minutes in length.

Conditions of Use:

Teachers involved in this program should have an understanding of their purpose in designing evaluation. In addition, they should be able to identify some of the common fallacies and weaknesses associated with measurement.

Related Materials:

Other VIMCET products which treat the area of evaluation:

- Alternative Avenues to Educational Accountability #22 (See page 437)
- Alternative Measurement Tactics for Educational Evaluation #26 (See page 441)
- Writing Tests Which Measure Objectives #29 (See page 435)

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired. Order by title and program number. Two-week preview available for any two filmstrip programs.

Title:	Management by Objectives
Descriptor:	A multimedia kit designed to help administrators and board members implement an accountability system
Publication Date(s):	1973
Originator:	Robert E. Boston, Ph.D., Superintendent of Schools, Indian Hill (Ohio) Exempted Village Schools, and David A. Spencer, Ph.D., Director of Secondary Education, Bloomfield Hills (Michigan) Public Schools
Intended Users:	School superintendents, principals and board members who want to install an accountability system in their schools
Purpose:	The authors of Management by Objectives cite three reasons for the development of the product: ● School operations have grown more complex. ● There is a need for techniques that "permit proper evaluation of alternative courses of action." ● Recent increased "involvement of students, teachers, parents and community in the decision-making process makes the need for techniques of choosing alternatives even more critical." Users will learn a systematic procedure whereby a school district can design and install a management by objectives system. Goals: None stated Objectives: None stated
Content:	The major topics treated in this kit are: 1. Management by Objectives: A Delivery System for School Accountability 2. Setting Educational Goals 3. Establishing Objectives: Steps to Goals 4. Assessment--Program Development--Evaluation 5. Appraisal Procedures
Usefulness Related to CBE:	Material explaining objectives can be used to acquaint school personnel with the concept of an objective. There is also material describing how to develop programs that meet objectives as well as to measure progress toward objectives.

History of Development:	No information is available.
Main Activities:	Users watch a sequence of five filmstrips with accompanying cassette tapes. Each filmstrip and tape covers one of the content areas outlined above. Users also refer to a "How-To Booklet" that reinforces concepts and describes procedures.
Provisions for Use:	Format: Management by Objectives is a self-instructional product. Personnel: Twenty persons may be accommodated with one set of materials. No special training is needed to participate and no special consultants are required. Product Components: The product consists of five filmstrips and five sides of cassette tape accompaniment. Twenty "How-To Booklets" are included. Time Span: No information is supplied on the length of time needed to work through the product.
Conditions of Use:	No special conditions for the use of this product are mentioned. However, users will require a cassette recorder for tape playback and a filmstrip projector.
Related Materials:	None
Ordering Information:	Write: Paul S. Amidon & Associates, Inc. 5408 Chicago Avenue South Minneapolis, Minnesota 55417 (612) 690-2401 Cost: $110.00 (one set) Twenty participants may be accommodated by one set of the materials.

Title:	ISCS Individualized Testing System
Descriptor:	Individualized evaluation materials for teachers who wish to design assessment appropriate to student needs
Publication Date(s):	1973
Originator:	Intermediate Science Curriculum Study (ISCS), Center for Educational Design, Florida State University
Intended Users:	Teachers attempting a transition to individualized instruction
Purpose:	Developers emphasize the need to "match the philosophy of education with that of instruction." They say that this level of importance increases in the case of individualized instruction. Goals: Materials will allow the teacher objective assessment of student achievement of skills, process and subject matter in the ISCS program. Objectives: There are no specific objectives stated for the product.
Content:	ISCS developed individualized evaluation materials as part of the Individualized Teacher Preparation program. The first two modules provide an overview of individualized evaluation. Suggestions are given for strategies to assess student progress based on individual student needs. To facilitate the implementation of the strategies a set of three booklets was developed for each level of the ISCS system.
Usefulness Related to CBE:	Measurable performance objectives provide the basis in this system for assessing student progress. Assessment procedures used relate to principles of criterion-referenced testing.
History of Development:	There is no information available as to where or how field testing was conducted. The project under which these materials were developed was funded by the National Science Foundation.

Main Activities: The assessment procedure starts with identifying selected measurable objectives as a basis for study. The teacher then chooses from alternative sets of performance checks in order to assess the students' attainment of the objectives already stated. Finally, a test situation is set up, correct responses are provided and remediation is given.

Provisions for Use: Format: The first two modules are intended for small group teacher inservice settings. The other three booklets are self-instructional for the teacher to use in the classroom.

Personnel: No administrators or consultants are necessary.

Product Components: There are two introductory modules: Individualizing Objective Testing and Evaluating and Reporting Progress. Three booklets are used as followup: "Performance Objectives" (58 pp.), "Performance Checks" (116 pp.) and "Performance Assessment Resources" (70 pp.).

Time Span: No requirements or suggestions are made.

Conditions of Use: This system is applicable only to those classroom teachers using the Intermediate Science Curriculum Study program.

Related Materials: The booklets are divided into units relating to chapters of the textbook, Probing the Natural World, available from the source listed below.

Ordering Information: Write:

Silver Burdett Company
General Learning Corporation
Morristown, New Jersey 07747

Cost: Packages consist of coordinated components for each level. All components of each package are essential to the successful implementation of the system. Single components can be purchased only if proof of purchase of the Evaluating and Reporting Progress module and Individualized Objective Testing module is given at time of order.

Level 1 Package:	46 137 40	$25.20
Evaluating and Reporting Progress	46 10P 18	2.67
Individualizing Objective Testing	46 10P 19	2.67
Performance Objectives	46 137 41	3.36
Performance Checks (2 of each, A, B and C included in package 46 137 40)		
Form A 1 only	46 127 71	2.67
Form B 1 only	46 127 72	2.67
Form C 1 only	46 127 73	2.67

Ordering Information: (Continued)	Performance Assessment Resource Part I	46 137 42	3.36
	Performance Assessment Resource Part II	46 137 43	3.36
	Level 2 Package:	46 138 40	$28.35
	Evaluating and Reporting Progress	46 10P 18	2.67
	Individualizing Objective Testing	46 10P 19	2.67
	Performance Objectives	46 138 41	3.36
	Performance Checks (2 of each, A, B and C included in package 46 138 40)		
	Form A 1 only	46 128 71	2.67
	Form B 1 only	46 128 72	2.67
	Form C 1 only	46 138 73	2.67
	Performance Assessment Resource Part I	46 138 42	3.36
	Performance Assessment Resource Part II	46 138 43	3.36
	Level 3 Package:	46 139 40	$47.25
	Evaluating and Reporting Progress	46 10P 18	2.67
	Individualizing Objective Testing	46 10P 19	2.67
	Performance Objectives	46 139 41	3.36
	Performance Checks (2 of each, A, B and C included in package 46 139 40)		
	Environmental Science--Well Being		
	Form A 1 only	46 129 71	2.10
	Form B 1 only	46 129 75	2.10
	Form C 1 only	46 129 79	2.10
	Why You're You--Investigation Variation		
	Form A 1 only	46 129 72	2.10
	Form B 1 only	46 129 76	2.10
	Form C 1 only	46 129 80	2.10
	In Orbit--What's Up		
	Form A 1 only	46 129 73	2.10
	Form B 1 only	46 129 77	2.10
	Form C 1 only	46 129 81	2.10
	Winds and Weather--Crusty Problems		
	Form A 1 only	46 129 74	2.10
	Form B 1 only	46 129 78	2.10
	Form C 1 only	46 129 82	2.10
	Performance Assessment Resource (1 each/package)		
	Environmental Science--Well-Being	46 139 42	3.36
	Why You're You--Investigation Variation	46 139 43	3.36
	In Orbit--What's Up	46 139 44	3.36
	Winds and Weather--Crusty Problems	46 139 45	3.36

MEASURES: REFERENCES

Title: Determining Test Length: Passing Scores and Test Lengths for Objectives-Based Tests

Descriptor: A booklet for the educational evaluator who wishes to employ objectives-based measures

Publication Date(s): 1972, 33 pp. + biblio.

Originator: Jason Millman, Cornell University

Intended Users: Designed for educational evaluators attempting to construct an objectives-based test

Purpose: Goals: The booklet serves two primary functions in the construction of criterion-referenced tests. First, it helps in deciding the number of test items needed to assess each objective. Second, tables are provided to determine the number of test items needed and the number of students to be tested.

Content: Discussion covers the topic of calculation of the Passing Score with regard to the following specific areas: (a) performance of others, (b) item content, (c) educational consequences, (d) psychological and financial costs and (e) measurement error. The test length problem is discussed also in the context of Classical Test Theory, Binomial Model and other sequential models. Tables are included which assist in problems of individual assessment and program evaluation.

Usefulness Related to CBE: The booklet is a synthesis of the literature dealing with criterion-referenced measures which relate test performance to absolute standards.

Related Materials:

- An Evaluation Guidebook--A Set of Practical Guidelines for the Educational Evaluator (See page 455)
- Priorities Planning: Judging the Importance of Individual Objectives (See page 341)
- Designing Teacher Evaluation Systems, W. J. Popham, Catalog No. PA104, Price $1.25
- Considerations in Selecting and Using Instructional Objectives (See page 339)
- IOX Objectives-Based Test Collections (See page 381)

Ordering Information:

Write: Instructional Objectives Exchange
P.O. Box 24095
Los Angeles, California 90024

Cost: $1.00 Catalog No. PA103

Title: An Evaluation Guidebook--A Set of Practical Guidelines for the Educational Evaluator

Descriptor: A guidebook for organizing objectives, designing measures and conducting course evaluations

Publication Date(s): 1972, 88 pp. + biblio.

Originator: Dr. W. James Popham of UCLA is the originator of the Instructional Objectives Exchange (IOX). He is well known in the areas of instructional development and educational evaluation.

Intended Users: The guidebook is designed for individuals who are responsible for conducting educational evaluations. Its brevity makes it useful for anyone seeking an overview of evaluation.

Purpose: The author states that the need for this guidebook arose from the "rather significant technological advances" which recently occurred in the fields of curriculum, measurement, instruction and evaluation. The purpose of the guidebook is to briefly present recent advances in evaluation.

Content: The guidebook lists and explains 20 guidelines for planning and conducting educational evaluation. An introductory section lists the guidelines for sections entitled (1) Objectives, (2) Measurements and (3) Data Collection and Analysis. The listing enables the reader to selectively consult topics of interest.

Usefulness Related to CBE: The guidelines on specifying objectives should be particularly useful to schools engaged in the process of writing or revising objectives. The guidelines are based upon actual experience in writing, organizing and revising many sets of objectives. The guidelines point out strategies for simplifying the specification of objectives and point out pitfalls and frustrations that can be avoided if objectives which possess "content generality" are specified. Useful suggestions for the use of taxonomies when specifying objectives are given.

Related Materials:

- Priorities Planning: Judging the Importance of Individual Objectives (See page 341)
- Considerations in Selecting and Using Instructional Objectives (See page 339)
- IOX Objectives-Based Test Collections (See page 381)
- IOX Measurable Objectives Collections (See page 153)

Ordering Information:

Write: Instructional Objectives Exchange
P.O. Box 24095
Los Angeles, California 90024

Cost: $2.50

Title: Issues and Procedures in the Development of Criterion-Referenced Tests: ERIC/TM Report #26

Descriptor: A nontechnical discussion of criterion-referenced tests (CRTs)

Publication Date(s): 1973, 18 pp.

Originator: Stephen P. Klein and Jacqueline Koseoff, ERIC Clearinghouse on Tests, Measurement and Evaluation, Educational Testing Service

Intended Users: Primary audiences would include curriculum specialists, program evaluators and other educators considering the use of criterion-referenced tests. Secondary audiences would include teachers, administrators and graduate students.

Purpose: The purpose of the paper is to examine the construction of criterion-referenced tests and to discuss major issues and procedures associated with each step of test construction. Representative CRTs in mathematics and other areas also are reviewed in this paper.

Content: The first section of the paper covers the following topics:

- Purpose and defining characteristics of CRTs
- Objectives chosen
- Item construction and selection
- Improving item quality
- Content validity
- Item and test bias
- Test scores

In the second section, the following current efforts in criterion-referenced testing are described:

- California Test Bureau (CTB)
- McGraw-Hill Prescriptive Mathematics Inventory (PMI)
- Comprehensive Achievement Monitoring (CAM)
- Individualized Criterion-Referenced Testing (ICRT)
- Instructional Objectives Exchange (IOX)
- MINNEMAST Curriculum Project--University of Minnesota

Content (Continued)

- National Assessment of Educational Progress (NAEP)
- Southwest Regional Laboratory (SWRL)
- System for Objectives-Based Assessment Reading (SOBAR), Center for the Study of Evaluation, UCLA
- Zweig and Associates

For each project, brief descriptions of the following topics are given:

- Focus
- Instructional Dependency
- Objective and Item Generation
- Test Models and Packaging
- Test Scores
- Sources for Further Information

Usefulness Related to CBE: This reference provides a handy discussion of issues and procedures useful to curriculum specialists and evaluators working in a CBE context. The discussions of CRT projects supply information that would help a person make an informed choice of testing alternatives that would be appropriate in a CBE setting.

Related Materials: None

Ordering Information: This paper is available (Order No. ED 083 284) from:

ERIC Clearinghouse on Tests, Measurement and
  Evaluation
Educational Testing Service
Princeton, New Jersey 08540

or

ERIC Document Reproduction Service (EDRS)
P.O. Box 190
Arlington, Virginia 22210

Cost: $.83 (microfiche), $1.67 (hardcopy)
Plus postage

Title:	Tests of Functional Adult Literacy: An Evaluation of Currently Available Instruments
Descriptor:	A detailed review of measurement instruments for teachers and administrators in adult education programs
Publication Date(s):	April 1976 (Third Printing), 110 pp. + biblio.
Originator:	Dean H. Nafziger, R. Brent Thompson, Michael D. Hiscox and Thomas R. Owen, Northwest Regional Educational Laboratory (NWREL)
Intended Users:	Teachers and administrators in adult education programs
Purpose:	The national goal of the Right to Read program is to "eliminate functional illiteracy by 1980 among 90 percent of the population over 16 years of age." With this there has been a rapid expansion of programs designed to teach survival skills. The developers state that the purpose of this reference is to "review and evaluate currently available measures of functional literacy." They state further that certain parameters and limitations must be noted when using this source. First, the list includes only tests designed for use with adults. Second, the tests may be used independently of other programs and materials. Third, a standard set of criteria was used in selecting tests which have unique characteristics, making it essential for readers to translate each based on its intended use. Finally, several tests still being developed were not included but may be available now. The compilation of tests for this reference involved a literature search and correspondence by mail, telephone or personal interview with publishers and professionals in the field of adult education and teaching and measuring adult reading.

Content:

The first part of the book covers (1) problems in assessment of adult literacy, (2) the methods used in identifying tests and (3) criteria for selection. Test reviews follow and are divided into three categories: (1) criterion-referenced functional literacy tests, (2) standardized tests and (3) informal tests.

A section on evaluation rates the tests on the same points included in descriptions in the review. The 41 criteria employed in evaluation of the tests are divided by purpose into four categories: (1) measurement validity, (2) examine appropriateness, (3) technical excellence and (4) administrative usability. The evaluation rating chart groups the tests under the same organization as in the review. In addition, a ranking is given for each criteria.

The test review format covers the following points in describing each test:

- Publisher
- Description
- Availability of alternate forms
- Administration time
- Administration procedures
- Materials used
- Scoring procedure
- Interpretation procedures
- Validity
- Reliability
- Field tryouts
- Ratings

A list of the tests reviewed in this reference is provided here:

- CRITERION-REFERENCED FUNCTIONAL LITERACY TESTS
  - Adult Performance Level Functional Literacy Test (APL)
  - Basic Reading Skills Mastery Test
  - Reading/Everyday Activities in Life (R/EAL)
  - Wisconsin Test of Adult Basic Education (WITABE)
- STANDARDIZED TESTS
  - Adult Basic Learning Examination (ABLE), Level I
  - Basic Occupational Literacy Test (BOLT), Fundamental Level
  - General Educational Performance Index (GEPI)
  - SRA Reading Index
  - Tests of Adult Basic Education (TABE), Level E

Content (Continued)	● INFORMAL TESTS Adult Basic Reading Inventory Cyzyk Pre-Reading Inventory Harris Graded Word List and the Informal Textbook Test Idaho State Penitentiary Informal Reading Inventory An Informal Reading Inventory for Use by Teachers of Adult Basic Education Individual Reading Placement Inventory Initial Testing Locator Tests Reading Evaluation--Adult Diagnosis (READ)
Usefulness Related to CBE:	A list of competencies which come under the definition of adult literacy is provided. Educators have found that these skills are difficult to measure. This reference alleviates some of the problems in developing measurement for these special areas.
Related Materials:	Assessment Instruments in Bilingual Education: A Descriptive Catalog of 342 Oral and Written Tests (See page 419)
Ordering Information:	Write: Office of Marketing Northwest Regional Educational Laboratory 710 S.W. Second Avenue Portland, Oregon 97204 (503) 248-6950 Cost: $5.95 Postage included

Title: CSE-RBS Test Evaluations: Tests of Higher-Order Cognitive, Affective, and Interpersonal Skills

Descriptor: A reference book for educators which contains an evaluation of 2,610 scales measuring cognitive, affective and interpersonal skills

Publication Date(s): 1972

Originator: Center for the Study of Evaluation (CSE), Graduate School of Education, UCLA, and Research for Better Schools, Inc. (RBS)

Intended Users: Program and test developers and evaluators, test researchers, psychometricians and test publishers

Purpose: The purpose of this reference is to provide information on the quality and existence of tests in the areas of high-order cognitive, affective and interpersonal skills.

Content: This publication is a single volume composed of evaluation ratings of some 2,610 scales and subscales considered to test skills in the higher-order cognitive, affective and interpersonal areas. Each instrument is categorized into a cell of one of the three taxonomies and is given a numerical rating and a letter grade (Good, Fair, Poor) on each of the following characteristics: Validity, Examinee Appropriateness (appropriateness for the intended examinee group), Normed Excellence, Teaching Feedback, Usability, and Retest Potential. (The CSE acronym for this system is VENTURE.) Comments are made on the instrument's ethical propriety.

The first portion of the book is devoted to a discussion of the components of each rating. For example, the system generally gives highest usability ratings to instruments which may be large-group administered in less than 20 minutes by a single observer without extensive practice.

The instruments are arranged by skill area and subskill and are alphabetically listed within each subskill. Each skill area is introduced by a description of the taxonomy against which the instruments were matched. The cognitive taxonomy is

Content: (Continued) a grid of skill (e.g., classifying) against content (e.g., verbal-semantic). The taxonomy of affective domain is three-dimensional: affective characteristic against type of measure (e.g., self-report) against type of report (e.g., speculative). The interpersonal taxonomy is four-dimensional with type of relation (e.g., with peers) mapped against location (e.g., at home), against type of measure, against type of report. The instruments are identified by name, form, age range and the initials of the publisher (or author in the case of unpublished tests). Indices of tests and publishers are included.

Usefulness Related to CBE: The evaluations are expected to be of assistance in development and assessment of innovative goals and programs as well as in identifying areas for which adequate instrumentation does not exist.

Related Materials: This book is part of a series of test evaluation compendia produced through CSE's Evaluation Technologies Program. This reference tool, as well as the following, was designed to assist in improving quality of evaluation. The other publications are:

- CSE Elementary School Test Evaluations (See page 467)
- CSE Secondary School Test Evaluations (See page 465)
- CSE-ECRC Preschool/Kindergarten Test Evaluations (See page 469)
- Tests of Functional Adult Literacy: An Evaluation of Currently Available Instruments (See page 459)

Ordering Information: Write:

Dissemination Services
Center for the Study of Evaluation
UCLA Graduate School of Education
Los Angeles, California 90024

Cost: $8.50

This description was adapted from the Educational Dissemination and Linking Agent Sourcebook and Directory of 100 Products Developed by Educational Laboratories and R&D Centers.

Title:	CSE Secondary School Test Evaluations
Descriptor:	A three-volume reference kit designed to aid school personnel to select tests related to school program goals
Publication Date(s):	1974. A second edition is planned for publication in 1978 (subject to funding). No copyright is claimed on the published material.
Originator:	Ralph Hoepfner, Project Director, Center for the Study of Evaluation (CSE), Graduate School of Education, UCLA
Intended Users:	Principals, evaluators, project directors, department chairpersons and other state, regional or local educators concerned with testing of students in grades 7-12. Secondary users include researchers, graduate students, test publishers and libraries and resource centers.
Purpose:	This kit is a compendium of tests keyed to educational goals areas and evaluated for the characteristics of Measurement Validity, Examinee Appropriateness, Administrative Usability and Normed Technical Excellence (the MEAN evaluation procedure). The goal of this kit is to provide a critical and objective evaluation of published tests in order to improve the way tests are selected for use in junior and senior high schools.
Content:	This publication contains evaluations of virtually every output measure (test) that is published and generally available to educators and researchers for use in testing schools, programs and students in grades 7-12. The introduction to the book defines and explains the MEAN evaluation method. Each of these four main categories is broken down into subcategories. For example, Measurement Validity contains two subcategories: (1) Content and Construct and (2) Concurrent and Predictive. A poor, fair or good rating is assigned to each evaluated test in each of the four main categories, a rating that has been derived from summarizing the subcategories. For example, one test in Number Concepts, Systems and Sets for grades 7-8 is rated

Content: (Continued)	fair (F) in Measurement Validity, good (G) in Examinee Appropriateness, fair (F) in Administrative Usability and fair (F) in Normed Technical Excellence.
Usefulness Related to CBE:	This kit is a useful screening device for selecting tests for review to determine whether existing measures adequately assess a given set of outcomes.

Related Materials:

These books are part of a series of test evaluation compendia produced through CSE's Evaluation Technologies Program. This reference tool, as well as the following, was designed to assist in improving quality of evaluation. The other publications are:

- CSE-ECRC Preschool/Kindergarten Test Evaluations (See page 469)
- CSE Elementary School Test Evaluations (See page 467)
- CSE-RBS Test Evaluations: Tests of Higher Order Cognitive, Affective, and Interpersonal Skills (See page 463)

Individuals selecting tests for adult education programs will find the following to be helpful:

- Tests of Functional Adult Literacy: An Evaluation of Currently Available Instruments (See page 459)

Ordering Information:

Write: Dissemination Services
Center for the Study of Evaluation
UCLA Graduate School of Education
Los Angeles, California 90024

Cost: One set of three volumes $22.00

This description was adapted from the Educational Dissemination and Linking Agent Sourcebook and Directory of 100 Products Developed by Educational Laboratories and R&D Centers.

Title:	CSE Elementary School Test Evaluations
Descriptor:	A reference book for evaluation specialists which contains evaluation of standardized achievement tests in all elementary school subject areas
Publication Date(s):	1975 (Second Edition)
Originator:	Ralph Hoepfner, Project Director, Center for the Study of Evaluation (CSE), Graduate School of Education, UCLA
Intended Users:	Principals, evaluators, project directors and other state, regional or local educators concerned with testing of students in grades 1-6. Secondary users include researchers, graduate students, test publishers and libraries and resource centers.
Purpose:	The purpose of this book is to provide a critical and objective evaluation of published tests in order to improve the way tests are selected for use in the elementary schools.
Content:	This book contains evaluations of virtually every output measure (test) that is published and generally available to educators and researchers for use in testing elementary schools, programs and students. The introduction to the book defines and explains the MEAN evaluation method. Each of the four main categories in the MEAN evaluation procedure is broken down into subcategories. For example, Measurement Validity contains two subcategories: (1) Content and Construct and (2) Concurrent and Predictive. A poor, fair or good rating is assigned to each evaluated test in each of the four main categories, a rating that has been derived from summarizing the subcategories. For example, one test in spelling for third grade is rated poor (P) in Measurement Validity, fair (F) in Examinee Appropriateness, good (G) in Administrative Usability and poor (P) in Normed Technical Excellence.
Usefulness Related to CBE:	This book is a useful screening device for selecting tests for review to determine whether existing measures adequately assess a given set of outcomes.

Related Materials:

This book is part of a series of test evaluation compendia produced through CSE's Evaluation Technologies Program. This reference tool, as well as the following, was designed to assist in improving quality of evaluation. The other publications are:

- CSE-ECRC Preschool/Kindergarten Test Evaluations (See page 469)
- CSE Secondary School Test Evaluations (See page 465)
- CSE-RBS Test Evaluations: Tests of Higher Order Cognitive, Affective, and Interpersonal Skills (See page 463)

Individuals selecting tests for adult education programs will find the following to be helpful:

- Tests of Functional Adult Literacy: An Evaluation of Currently Available Instruments (See page 459)

Ordering Information:

Write: Dissemination Services
Center for the Study of Evaluation
UCLA Graduate School of Education
Los Angeles, California 90024

Cost: $5.00

This description was adapted from the Educational Dissemination and Linking Agent Sourcebook and Directory of 100 Products Developed by Educational Laboratories and R&D Centers.

Title: CSE-ECRC Preschool/Kindergarten Test Evaluations

Descriptor: A reference book for school personnel which contains evaluations of the most commonly used measures of school achievement

Publication Date(s): 1971, 54 pp.

Originator: Center for the Study of Evaluation (CSE) and Early Childhood Research Center (ECRC), Graduate School of Education, UCLA

Intended Users: Principals, evaluators, project directors and other state, regional or local educators concerned with children of ages 30 months through six years. Secondary users include researchers, graduate students, test publishers and libraries and resource centers.

Purpose: This book is a compendium of tests keyed to educational goal areas and evaluated for the characteristics of Measurement Validity, Examinee Appropriateness, Administrative Usability and Normed Technical Excellence (the MEAN evaluation procedure).

The purpose of this book is to provide a critical and objective evaluation of published tests in order to improve the way tests are selected for use in evaluating preschool and kindergarten programs.

Content: This book contains evaluations of virtually every output measure (test) that is published and generally available to educators and researchers for use in testing preschool and kindergarten programs and students. The introduction to the book defines and explains the MEAN evaluation method. Each of the four main categories in the MEAN evaluation procedure is broken down into subcategories. For example, Measurement Validity contains two subcategories: (1) Content and Construct and (2) Concurrent and Predictive. A poor, fair or good rating is assigned to each evaluated test in each of the four main categories, a rating that has been derived from summarizing the subcategories. For example, one test is rated fair (F) in Measurement Validity, poor (P) in Examinee Appropriateness, good (G) in Administrative Validity and poor (P) in Normed Technical Excellence.

Usefulness Related to CBE:	Information might be used by evaluators designing or selecting assessment procedures.
Related Materials:	This book is part of a series of test evaluation compendia produced through CSE's Evaluation Technologies Program. This reference tool, as well as the following, was designed to assist in improving quality of evaluation. The other publications are: ● CSE Elementary School Test Evaluations (See page 467) ● CSE Secondary School Test Evaluations (See page 465) ● CSE-RBS Test Evaluations: Tests of Higher Order Cognitive, Affective, and Interpersonal Skills (See page 463) Individuals selecting tests for adult education programs will find the following to be helpful: ● Tests of Functional Adult Literacy: An Evaluation of Currently Available Instruments (See page 459)
Ordering Information:	Write: Dissemination Services Center for the Study of Evaluation UCLA Graduate School of Education Los Angeles, California 90024 Cost: $5.00 per copy

This description was adapted from the Educational Dissemination and Linking Agent Sourcebook and Directory of 100 Products Developed by Educational Laboratories and R&D Centers.

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Title:	A Format for Monitoring the Teaching-Learning Process
Descriptor:	A booklet for any educator who wishes to develop a process for monitoring an instructional program through the use of performance objectives
Publication Date(s):	1971, 12 pp.
Originator:	Terry D. Cornell, EPIC Diversified Systems Corporation
Intended Users:	Administrators, teachers, project directors or anyone else responsible for supervising program implementation
Purpose:	The booklet proposes that the process will assist in achieving educational accountability.
Content:	The book outlines the procedure for monitoring the showing of how organization, content, method and facilities play a contingent role in attaining performance objectives. Procedures for implementation are included.
Usefuless Related to CBE:	According to the authors, this booklet will help the users "to determine if what is planned as an instructional program is actually implemented."
Related Materials:	None
Ordering Information:	Write: Educational Innovators Press P.O. Box 13052 Tucson, Arizona 85711 (602) 795-4210 Cost: $1.50

Title: Educating Children for Adulthood: A Concept of Psychosocial Maturity

Descriptor: A research report which describes a model of psychosocial maturity based on measurable attitudes and dispositions

Publication Date(s): September 1973, 53 pp.

Originator: Ellen Greenberger and Aage B. Sorenson, Schools and Maturity Program, Center for Social Organization of Schools, The Johns Hopkins University

Intended Users: Anyone in education who is concerned with the assessment of children's personal and social development

Purpose: The Schools and Maturity Program studies the impact of social experience on attitudinal development.

The authors point out that a need was clearly recognized for construction of "a convincing model of non-academic objectives (as well as) a tool for assessing children's progress toward non-academic objectives."

Content: A psychosocial maturity model based upon "requirements of society" and "healthy development of individuals" is presented. Maturity is considered from three viewpoints: (1) individual adequacy, (2) interpersonal adequacy and (3) social adequacy.

Usefulness Related to CBE: This information, based on research, should be helpful to school districts in the fledgling stages of developing nontraditional educational goals.

Related Materials: There are 13 technical reports and four working papers published through the work of this program.

Ordering Information: Write: Report No. 159
Center for Social Organization of Schools
The Johns Hopkins University
Baltimore, Maryland 21218

Cost: Information is not available.

Title: Measuring Psychosocial Maturity: A Status Report

Descriptor: A research report which describes the development of a self-report instrument for assessing learners, ages 11-18

Publication Date(s): December 1974, 59 pp. + appen.

Originator: Ellen Greenberger et al., Schools and Maturity Program, Center for Social Organization of Schools, The Johns Hopkins University

Intended Users: Anyone in education who is concerned with the assessment of children's personal and social development

Purpose: With a growing realization that the school experience does impact learners' attitudes, values, etc., there is a resulting concern for the lack of assessment devices for nonacademic development.

The report provides a description of an attitude inventory model which integrates societal requirements with an individual's growth. According to the authors, another goal is "to test the theoretical relationships specified by our model of psychosocial maturity against empirical data concerning the relationships among subscales."

Content: The description covers the area of methods used for scale construction, validation and examination of the structure of psychosocial maturity.

Usefulness Related to CBE: This information, based on research, should be helpful to school districts in the fledgling stages of developing nontraditional educational goals.

Related Materials: There are 13 technical reports and four working papers published through the work of this program.

Ordering Information: Write: Report No. 187
Center for Social Organization of Schools
The Johns Hopkins University
Baltimore, Maryland 21218

Cost: Information is not available.

Title: Schools and Maturity Program: Final Report

Descriptor: A research report that summarizes work units of the psychosocial maturity assessment program

Publication Date(s): February 1976, 17 pp. + appen.

Originator: Ellen Greenberger, Schools and Maturity Program, Center for Social Organization of Schools, The Johns Hopkins University

Intended Users: Anyone in education who is concerned with the assessment of children's personal and social development

Purpose: There are three objectives of the Schools and Maturity Program:

1. To provide educators with a theoretical framework for understanding psychosocial development--and thus for selecting appropriate nonacademic goals of the school experience
2. To deliver a reliable, validated instrument for the assessment of psychosocial maturity
3. To obtain knowledge of the effects of family, school and peer group on youngsters' psychosocial development

Content: The two units of work described in the report are (1) Theory Construction and Test Development and (2) Validation of Psychosocial Maturity Scales. A list of the technical reports and abstracts is provided in appendices.

Usefulness Related to CBE: As stated by the author, the program is "clearly a response to felt needs to conceptualize, assess and investigate nonacademic outcomes of children's lives in school."

Related Materials: There are 13 technical reports and four working papers published through the work of this program.

Ordering Information: Write: Report No. 210
Center for Social Organization of Schools
The Johns Hopkins University
Baltimore, Maryland 21218

Cost: Information is not available.

Title:	Sample Competency Tests
Descriptor:	Portions of graduation requirement competency tests in four categories and a level six mathematics test
Publication Date(s):	1977, 76 pp. (2 pp. microfiche)
Originator:	Parkrose Public Schools, Parkrose School District #3, Portland, Oregon
Intended Users:	Educators involved in the development of competency tests for the measurement of student performance
Purpose:	While not stated, the purpose of these sample competency tests appears to be to measure student competency in completion of specifically defined and readily identifiable tasks. Some of the sample tests included are designed to measure graduation requirement competencies.
Content:	Sample competency tests are presented in the areas of mathematics, writing, reading and analyzing. These tests are designed to measure graduation requirement competencies. Additionally, a level six competency test of mathematics is provided for interested readers.
Usefulness Related to CBE:	These sample tests may help those seeking examples of measures of graduation requirement competencies.
Related Materials:	None
Ordering Information:	This document is available (Order No. ID 005-355) from: San Mateo Educational Resources Center (SMERC) San Mateo County Office of Education 333 Main Street Redwood City, California 94063 Cost: SMERC Subscribers: 1st 10 microfiche are free $.35 for each additional or 3/$1.00 Nonsubscribers: $.50 per microfiche or 3/$1.50, plus postage and handling

Title: Item Characteristics and Criteria for a Test of Minimum Competencies

Descriptor: A paper that presents criteria and characteristics to be considered in preparing a minimum competencies test

Publication Date(s): May 1977, 10 pp.

Originator: Donald Ross Green, CTB/McGraw-Hill, paper presented to the Washington Educational Research Association, Fifth Annual Pacific Northwest Research and Evaluation Conference, Seattle, Washington

Intended Users: District test development and evaluation specialists involved in the design of tests for measuring competencies

Purpose: This paper describes the characteristics and contents that items on tests of minimal competencies should have and how these items differ from those of other achievement tests.

Contents: The author begins by identifying three purposes of a measure of minimum competence: (a) to determine which students are qualified to graduate, (b) to provide information about what students need to learn to be qualified to graduate and (c) to assess how well the school or school system is doing in its job in preparing students to graduate. The author contends that for practical purposes one test should be able to serve all three purposes. The characteristics of items needed for each purpose are considered. The body of the paper focuses upon the item characteristics needed to meet the three purposes, difficulties encountered in meeting these criteria and suggestions for resolving those problems.

Usefulness Related to CBE: Since the topics covered are those to be considered in creating tests of competencies, they are directly applicable to CBE implementors.

History of Development: A slightly different version of this paper was first presented at the National Conference on Minimum Competencies: Trends and Issues at CUNY, March 4, 1977. It appears in the Proceedings published by CUNY.

Related Materials: None

Ordering Information: Write: Donald Ross Green
CTB/McGraw-Hill
Del Monte Research Park
Monterey, California 93940

Cost: Free

Title: The Development of Criterion-Referenced Tests: Technical Considerations

Descriptor: A pamphlet which describes the problem areas encountered in the development of criterion-referenced tests

Publication Date(s): 1976, 21 pp.

Originator: W. James Popham

Intended Users: Test developers, evaluators, psychometricians and others involved in the development and use of criterion-referenced tests

Purpose: To describe three problem areas relating to criterion-referenced tests which have emerged during the process of devising such tests

Content: Following a brief analysis of the nature of criterion-referenced testing, the author describes three problem areas or "tensions" associated with criterion-referenced testing. The first is the problem of domain specification replicability. The second tension stems from the necessity to determine optimal test magnitude. The third and final problem discussed in this paper relates to the difficulty of providing comparative data. The author then proposes four rules which may be applied to all criterion-referenced tests.

Usefulness Related to CBE: This paper provides a discussion of issues related to the development of criterion-referenced tests and should be of value to those involved in this process.

Related Materials:

- Classroom Implications of Criterion-Referenced Tests (See page 485)

Ordering Information:

Write: The Instructional Objectives Exchange
P.O. Box 24095
Los Angeles, California 90021

Cost: $2.95

Title: Classroom Implications of Criterion-Referenced Tests

Descriptor: A pamphlet which details classroom implications of criterion-referenced tests

Publication Date(s): 1976, 19 pp.

Originator: W. James Popham

Intended Users: Test developers, classroom teachers and educational administrators involved in the development and use of criterion-referenced tests

Purpose: The author states that the purpose of this planning aid is to describe the nature of criterion-referenced tests, contrast them with the more traditional norm-referenced tests and discuss the implications of criterion-referenced measurement for classroom instruction.

Content: The author considers the implications of criterion-referenced measures for curriculum, instruction and evaluation. Provided are a definition of criterion-referenced tests, a bit of measurement history and a litany of the shortcomings of standardized achievement tests. The author also discusses the desirable qualities of a criterion-referenced test and concludes that the advantages provided classroom teachers warrant increased teacher familiarity with this type of measure.

Usefulness Related to CBE: This paper should be particularly useful to teachers seeking to understand criterion-referenced measures as related to the curriculum, instruction and evaluation.

Related Materials:

- The Development of Criterion-Referenced Tests: Technical Considerations (See page 483)

Ordering Information: Write: The Instructional Objectives Exchange
P.O. Box 24095
Los Angeles, California 90021

Cost: $2.95

INDICES

Component Index

Title Index

Originator Index

OUTCOMES

MEASURES

INSTRUCTION

MANAGEMENT

PROMOTING INSTRUCTIONAL OUTCOMES

Instruction in any school program is a complex process that involves identifying and sequencing content and process, presenting content and skill-related information, providing sufficient and appropriate practice, providing performance feedback and motivating students toward outcome attainment. A carefully designed CBE program that is based on appropriate, desirable and explicitly stated learning outcomes and that includes reliable measures of students' outcome attainment, requires that the content, information, practice and feedback procedures be revised until an acceptable level of pupil performance is demonstrated. Each of these elements of instruction is [illegible] briefly in the following paragraphs.

[illegible]ication of Content. Content should be appropriate and [illegible]. It is important that program content adequately represent its curriculum area as perceived and defined not only by the program designers and developers but also by the public or educational community that views and evaluates program content. If the program outcomes have been carefully identified, instructional content will be both appropriately representative of the curriculum area and compatible with students' abilities.

2. Sequencing of Content. Content is generally sequenced most appropriately and effectively from the simplest task of a series to the most difficult task.

3. Presentation of Information. Content and skill information may be presented to students through any appropriate or demonstrably effective means or format. It may be transmitted, for example, by a teacher, by a person functioning as an "instructional aide" in a natural setting, by a text or by an audiovisual presentation. Information may be presented in any effective form and through deduction, induction, inquiry or other approaches.

4. Provisions for Practice. Instructional activities should provide appropriate and sufficient skills practice. Practice is sufficient if it provides enough opportunity for students to perform both in groups and individually and as they might be expected to perform the specific skill as stated in the outcome. Sufficient and appropriate practice of skills is essential to CBE programs. Where "life relevant" competencies are being promoted, opportunity for skill practice often may be provided in natural settings.

5. Providing Performance Feedback. Effective instruction includes the means and procedures for providing individual students with information regarding the adequacy of their response during practice.

6. Motivating Students Toward Goal Attainment. Arousing and maintaining student interest in attaining instructional outcomes are educational concerns. When the other instructional elements (content identification, content sequencing, information transmittal, practice opportunities and performance feedback) function effectively, goal attainment motivation tends to be positive.

This section of the CBE Sourcebook describes material resources to assist individuals or groups in selecting and developing INSTRUCTION that will promote desired instructional outcomes:

Available Materials--available sources that describe prepared, effective instructional programs

Selection Procedures--products which assist the user in selecting from available instructional materials and procedures

Developmental Instructions--products that instruct the user in designing effective instructional materials and procedures

References--references which provide information related to instructional product design.

INSTRUCTION: AVAILABLE MATERIALS

Title: Educational Programs That Work

Descriptor: A collection of short descriptions of exemplary Joint Dissemination Review Panel-approved (JDRP) projects

Publication Date(s): Winter 1977 (4th Edition), 356 pp. (5th Edition planned Fall 1978)

Originator: Far West Laboratory for Educational Research and Development (FWL)

Intended Users: School personnel who wish to learn about educational programs that have been tested in various schools throughout the country

Purpose/ Content: This collection is divided into ten sections describing projects by the subject matter they address. The projects included deal with: alternative schools; bilingual/migrant education; career/vocational education; early childhood/parent readiness/parent involvement; environmental education; organizational arrangements/training/administration; reading/language arts/math; special education/learning disabilities; special interests: arts, communication skills, technology; special interests: health, human behavior, physical education, multiple talent development.

For each project described, the following information is provided:

- Description
- Target audience
- Assurances/claims
- Descriptors
- Financial requirements
- Implementation/evaluation
- Services available
- Contact person(s)

Usefulness Related to CBE: This collection may be consulted by persons searching for innovative validated instructional programs that are appropriate in a CBE context. Many of the programs described in the collection are objectives-based. Most are transportable, and programs may be visited if arrangements are made with the appropriate state facilitator.

Usefulness Related to CBE: (Continued)

This catalog provides descriptions of validated, innovative programs. Some of those included have implications for the successful implementation of competency based education. The usefulness of a program will vary from one district to another. With the background information and names of contact persons provided, appropriate inquiries can be made.

History of Development:

This collection was originally prepared for the U.S. Office of Education. The programs described in this catalog have all undergone evaluation as well as review by the Joint Dissemination Review Panel within the Education Division of the U.S. Department of Health, Education and Welfare.

Related Materials:

- Catalog of NIE Education Products (See page 497)

Ordering Information:

Individual copies of this collection may be ordered from:

Far West Laboratory for Educational Research
and Development
1855 Folsom Street
San Francisco, California 94103
(Attention: Order Department)

Cost: $4.95 per copy (prepaid)

The collection is also available from ERIC. It may be previewed at your state's National Diffusion Network's State Facilitator Office.

Title: Curriculum Development in Elementary Mathematics: Nine Programs

Descriptor: Provides indepth information about nine elementary mathematics programs

Publication Date(s): 1974, 246 pp.

Originator: Kathleen Devaney and Lorraine Thorn, Far West Laboratory for Educational Research and Development (FWL)

Intended Users: Teachers, curriculum coordinators and principals

Purpose/ Content: The collection contains descriptions of nine elementary mathematics programs that resulted from the research and development movement in public education. All nine programs were influenced by the "new math," which, the authors state, "revealed that its designers generally over-estimated both children's and teachers' capacities to understand abstract math concepts." They go on to say that the programs described here attempt in various ways "to correct the apparent failings of the new math: by returning to more conventional arithmetic, by rethinking the manner and sequence in which the newer and more powerful concepts were presented to children, or by couching arithmetic learning in terms that would seem more natural and relevant to children."

Each program is described in a fashion that encourages comparison with the other programs in the collection.

The organization of each report is as follows:

- Introduction
- Basic Information
- Goals and Rationale
- Content
- Classroom Action
- Implementation
- Program Development and Evaluation

Purpose/ Content: (Continued)

The nine programs described are:

- The Madison Project
- The Arithmetic Project for Teachers
- Nuffield Mathematics Project and Mathematics for Schools
- Individually Prescribed Instruction--Mathematics (IPI-Math)
- Individualized Mathematics System (IMS)
- Patterns in Arithmetic (PIA)
- Minnesota Mathematics and Science Teaching Project (Minnemast)
- Unified Science and Mathematics for Elementary Schools (USMES)
- Developing Mathematical Processes (DMP)

Usefulness Related to CBE:

The authors state that "the reports of IPI, IMS, DMP, and PIA included here presage and complement the competency-based approach to teacher education." Information about those four programs presented in this collection would be helpful to a person faced with the task of selecting mathematics curricula appropriate to a CBE context.

History of Development:

Information is not available.

Related Materials:

None

Ordering Information:

Copies are available from:

Far West Laboratory for Educational Research
and Development
ATTENTION: G. Larrosa
1855 Folsom Street
San Francisco, California 94103

Cost $7.95 per copy (prepaid)

Title: Catalog of NIE Education Products

Descriptor: A two-volume description of 660 products funded in whole or in part by the National Institute of Education

Publication Date(s): 1975

Originator: National Institute of Education (NIE), U.S. Department of Health, Education and Welfare, Washington, D.C. 20208

Intended Users: The forward to the catalog states that it was designed to serve several audiences:

- Educators at all levels
- Members of Congress
- Parents
- Publishers

Purpose/ Content: Developers of the catalog list two primary purposes:

1. To inform educational practitioners, developers, policy makers and publishers about a wide range of school-oriented products developed with federal R&D funds
2. To provide information to help potential consumers make decisions concerning the most appropriate education products for their needs

Products in the following 16 content areas are described:

- Aesthetic Education
- Basic Skills: Mathematics and Science
- Basic Skills: Reading and Language Arts
- Basic Skills: Reasoning and Problem Solving
- Early Childhood Education
- Education and Work
- Educational Equity: Handicapped
- Educational Equity: Multicultural/Bilingual Education
- Educational Equity: Sex Fairness
- Evaluation, Measurement and Needs Assessment
- Finance, Productivity and Management
- Guidance and Counseling
- Information Utilization and Dissemination

Purpose/ Content: (Continued)

- Post-Secondary Education
- Social Education/Social Science
- Teacher Education

Each product in the collection is summarized briefly and information is presented about the following aspects of the product:

- Subject Area(s)
- Intended Users and Beneficiaries
- Goal(s) or Purpose(s)
- Patterns of Use
- Assessment Provisions
- Time Requirements
- Implementation Procedures
- Assurances and Claims
- Materials and Equipment
- Developer/Author
- Availability

Usefulness Related to CBE:

Since the catalog provides comprehensive descriptions of educational products, which include indications of product effectiveness, the user should be able to make informed decisions among available products. The chief values of the catalog lie in its comprehensiveness and in the amount of information presented about each product. Especially useful are the indications of product effectiveness.

History of Development:

At the request of NIE in early 1975, past and present contractors and grantees developed descriptions of products that would be ready for implementation by November 1975. Guidelines for the product descriptions specified that developers include verifiable, supportable assertions and assurances about products.

In cases where assertions and assurances could not be verified, developers were asked to describe negative attributes and to make suggestions about how users could guard against potential hazards. Due to limitations of time and number of staff, NIE did not verify product descriptions, and therefore authors of the catalog state that "NIE cannot certify the accuracy, completeness, or objectivity of the developers' statements."

Should this first edition of the catalog prove useful, future editions are planned that will include additional products as well as up-to-date information on products described in this edition. No information is presented on how the effectiveness of the catalog will be assessed.

Related Materials:

- ALERT, A Sourcebook of Elementary Curricula, Programs, and Projects (See page 501)

Ordering Information:

Copies of this reference catalog are available from:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

Cost: Not specified

Title: ALERT, a Sourcebook of Elementary Curricula, Programs, and Projects

Descriptor: A guide to selected curricula, training programs, model projects and resources in elementary education. Part of the ALERT Information System.

Publication Date(s): 1972 (experimental versions of the sourcebook were used during 1970-1972), 493 pp.

Originator: Samuel N. Henrie, Senior Editor, Far West Laboratory for Educational Research and Development (FWL)

Intended Users: The ALERT sourcebook was designed for persons interested in improving educational programs for K-6 learners. Primary users are teachers, students, parents, curriculum specialists, administrators, school board members and community representatives. A secondary use of the product is in preservice and inservice teacher education.

Purpose/ Content: The purpose of the ALERT sourcebook is to present information about a comprehensive range of carefully tested programs in elementary education developed through 1972. This information is designed to help users become aware of new programs and to help them make choices about which new programs would be appropriate in their own situations. About 300 programs are described.

There are fifteen chapters in the ALERT sourcebook, covering both new and traditional areas of elementary education, including multisubject areas. Within each chapter, developers have sought to include a comprehensive range of alternatives, generally beginning with a section describing new curricula. A second section describes model projects; training programs (mostly for teachers, but in some cases for administrators, tutors or parents) are described in a third section. Resources designed to allow the reader to extend his/her search are presented in the fourth section.

Usefulness Related to CBE:	Users of the ALERT sourcebook can find information to help determine whether a given innovative, validated project is appropriate in a CBE context. Additionally, the resource sections of each chapter can be used to access other programs. Because the sourcebook is a nearly complete list of validated programs produced through 1972, users need only to search programs developed since then to be entirely up-to-date.
History of Development:	Development of the ALERT sourcebook began in 1969. A development team surveyed journals, conference reports, listings of conference reports, ERIC and ERIC Clearinghouse reports and made contacts with recognized experts in order to locate innovative projects.

After developing a systematic educational development and information file, a selection procedure and several criteria were established in order to delimit a manageable number of high quality items. The sourcebook was limited to programs for prekindergarten through sixth grade children (though some programs extend to higher grade levels). The sourcebook was also limited "to selected new curricula, models for organization and instruction, personnel training programs, and resource lists and indexes."

The following criteria for selection were adopted:

First Priority: Programs produced by research and development agencies (agencies which employ a rigorous R&D cycle)
Second Priority: New non-R&D programs that have demonstrated their value through field trials
Third Priority: Other new programs that have not been rigorously evaluated but show internal evidence of good quality and represent important alternatives to traditional practice

Project staff, assisted by expert consultants, chose selections for inclusion in the sourcebook by applying the above criteria. All first priorities were included; when these did not provide adequate coverage of an area, second and third priorities were added.

A "Technical Report on the Selection of Entries for the ALERT Information Product, The Sourcebook of Elementary Curricula, Programs and Projects" details the selection process and is available upon request from the Far West Laboratory.

History of Development: (Continued)

An experimental version of this product has been field tested in approximately 100 schools in five states between 1970-1972. Developers state that field testing "has focused on refinements in the access system--how does the user locate the kinds of programs he needs?--and in the format in which the reviews are presented." Developers request from users additional data on the usefulness of the present version of the sourcebook.

Related Materials:

None

Ordering Information:

Write: Docent Corporation
25 Broadway
Pleasantville, New York 10570

Cost: $9.95 per copy

A directory listing sites where ALERT curriculum materials are being used is available at the same address for $2.45.

Title: Modelog: A Catalog of Comprehensive Educational Planning Component Models

Descriptor: A catalog of planning models to help school districts identify appropriate and effective programs to meet their goals and needs

Publication Date(s): 1975, 265 pp.

Originator: Systems Design and Development Staff, New Jersey Department of Education, under an ESEA Title III grant administered through the Public Schools of Newton, New Jersey

Intended Users: Educational planners concerned with implementing "efficient and thorough" education in school districts

Purpose/ Content: This reference is "intended to be a kind of Sears, Roebuck catalog for educational planning." The thrust appears to be one of allowing more local control in developing models. However, districts cannot be responsible for all requirements involved in planning models. It is suggested that their attention should be given to establishing priorities and providing adequate resources. Sources such as Modelog will supply the technical assistance to facilitate the whole process.

The component models described in the catalog were selected after a nationwide search was carried out. The content is categorized into six components:

1. Goal setting procedures
2. Writing objectives and using existing banks of objectives
3. Assessment procedures
4. Guidelines for program selection
5. Evaluating program effectiveness
6. Evaluating program efficiency

Each of the models described in this reference supplies the following information:

- Source
- Cost
- Copyright
- Overview

Purpose/ Content: (Continued)	- Procedures - Implementation needs - Special features When appropriate, a sample entry or objective is offered from the material being described.
Usefulness Related to CBE:	This reference should assist school district planners in their response to the legislative directive calling for "thorough and efficient" education. It should serve also to clarify the question of how to involve the community in educational decision making.
Related Materials:	None
Ordering Information:	Write: New Jersey Department of Education Systems Design and Development 225 West State Street Trenton, New Jersey 08625 (609) 292-7983 Cost: Not available

Title: Educational Products Information Exchange (EPIE) Educational Product Reports (#52, 64, 65, 68, 69/70, 71)

Descriptor: A series of descriptive and analytic reports about educational materials

Publication Date(s): Not given

Originator: Educational Products Information Exchange (EPIE) Institute

The EPIE Institute is a nonprofit agency providing services to help educational consumers make informed decisions concerning the purchase of educational products. The Institute was provisionally chartered in 1967 by the Regents of the University of the State of New York. In 1975 EPIE received a permanent charter.

Intended Users: Teachers, principals, curriculum specialists, superintendents and others who have an interest in information about educational products

Purpose/ Content: Six EPIE reports are described in the present review. These reports analyze selected elementary and secondary instructional systems in a particular curriculum area:

- Evaluations of Art Programs for Non-Artist Teachers (EPIE Report #52)
- Analyses of Basic and Supplementary Reading Materials (EPIE Report #64)
- Materials for Individualizing Mathematics Instruction (EPIE Report #65)
- Early Learning Kits--25 Evaluations (EPIE Report #68)
- Analyses of Elementary School Mathematics Materials (EPIE Report #69/70)
- Secondary School Social Studies: Analyses of 31 Textbook Programs (EPIE Report #71)

Usefulness Related to CBE: The EPIE reports analyze and provide empirical information about current educational products. In addition, these reports often describe commercially available products, while many similar reports describe only laboratory products. The CBE

Usefulness Related to CBE: (Continued)

practitioner can thus use the EPIE reports as a source of information about available commercial educational products.

History of Development:

Since 1967, the EPIE Institute has published a continuing series of reports describing educational products. These reports are part of the membership services of the EPIE Institute.

A National Advisory Board composed of 30 educational and technical organizations offers EPIE assistance and advice. EPIE staff also are assisted by more than 100 consultants from a range of organizations throughout the U.S.

Related Materials:

- Selecting and Evaluating Beginning Reading Materials--A How-To Handbook (EPIE Report #62/63) (See page 537)

Ordering Information:

EPIE Reports are available from:

EPIE Institute
463 West Street
New York, New York 10014

Cost to nonmembers is $20.00 per copy with discounts available for quantity purchases. EPIE members receive a 50 percent discount.

The following section includes descriptions of the individual sets of Educational Product Reports (#52, 64, 65, 68, 69/70, 71).

Title: Analyses of Basic and Supplementary Reading Materials (EPIE Report #64)

Descriptor: Analyses of 76 commonly used reading materials

Publication Date(s): 1974, 109 pp.

Originator: Educational Products Information Exchange (EPIE) Institute

Intended Users: School personnel who desire indepth information about available reading materials

Purpose/ Content: The purpose of this report is to provide descriptive information about a substantial number of reading materials. This information is aimed at helping the user to focus indepth information on particular products.

The report is organized into six parts. The first part traces the background of these analyses. The second part explains a system of Instructional Design Analysis that focuses on Objectives, Sequence, Methodology and Evaluation. This system is used in the report to analyze products. The third part analyzes basic reading systems for a general audience. In the fourth part, basic reading systems for primary, intermediate and junior high grades are presented. Supplementary reading programs are analyzed in the fifth part. The report concludes with a list of approximate prices of the programs.

Usefulness Related to CBE: See page 507

History of Development: A group of 59 materials analysts were trained in the use of materials analysis. Then they met on May 18-23, 1974, and formed teams of three--each consisting of a reading specialist, a classroom teacher and a curriculum or media generalist--to review the products described in the report.

The introduction to this report describes anticipated supplementary reports on the "actual use and performance" of the analyzed products. Field testing

History of Development: (Continued)	to serve as the source of data is to be done "with the cooperation of principals and teachers drawn from a representative national sampling of school buildings."
Related Materials:	See page 508
Ordering Information:	See page 508

Title: Analyses of Elementary School Mathematics Materials (EPIE Report #69/70)

Descriptor: Comparative systematic analyses of 18 elementary mathematics programs

Publication Date(s): 1975, 128 pp.

Originator: Educational Products Information Exchange (EPIE) Institute

Intended Users: School personnel and others interested in information to help them make decisions about mathematics programs for local use

Purpose/ Content: The purpose of the report is to provide comparative analyses of 18 elementary mathematics programs according to a systematic approach to instructional design. This approach involves studying a product along four constructs: Intents, Contents, Methodology and Means of Evaluation.

The first part of the report contains information about procedures used in analyzing mathematics programs. The bulk of the reports consists of analyses of 18 programs, featuring descriptive information and product background information, "Additional Considerations" and an overall assessment of the product. Discussions of the four constructs mentioned above are included.

Usefulness Related to CBE: See page 507

History of Development: No information is presented that explains how products were chosen for inclusion in this report.

Thirty product analysts--administrators, teacher educators and staff members of state departments of education, with half of them having primary responsibilities in mathematics--received training in EPIE's system of instructional design analysis. After the training they reviewed the products described in the report. Special care was taken to insure that each product was reviewed by at least one mathematics specialist.

Related Materials:	See page 508
Ordering Information:	See page 508

Title: Early Learning Kits--25 Evaluations (EPIE Report #68)

Descriptor: Analyses of the instructional design of materials for preschool children

Publication Date(s): 1975, 88 pp.

Originator: Educational Products Information Exchange (EPIE) Institute

Intended Users: Teachers, parents, administrators and community leaders who are interested in information to help them make decisions about materials for early childhood education

Purpose/ Content: The purpose of this report is to analyze 25 selected early learning kits according to a systematic outline of the main elements of instructional design. These main elements of instructional design are: (1) a set of goals and objectives, (2) a body of content, (3) sequence of activities, (4) methods and activities and (5) assessment. The analyses are supplemented by comments and opinions from persons who have actually used the materials with children.

A kit is defined in the report as "an instructional system that encompasses at least two or three elements of instructional design but does not necessarily include materials for children to handle or use on their own." Twenty-five kits are analyzed under eight headings:

- Physical Description
- Target Audience
- Content and Objectives
- Methods of Use
- Conditions of Use
- Rationale
- Research and Development
- Summary

Under each heading, three types of information are generally presented: the producer's description of that aspect of the product, an analysis of that aspect of the product by EPIE analysts, and user feedback. Under some headings there is no user feedback, and in some cases there is no producer's description.

Usefulness Related to CBE:	See page 507
History of Development:	Developers of this report surveyed catalog entries, journal advertisements and other promotional leads in order to identify an initial pool of early learning kits for further scrutiny. On the basis of further descriptive information, producers of 51 early learning kits were asked to supply review copies of materials. Of the materials that were sent for review (80 percent of the producers from whom requests were made sent materials), 25 were selected for inclusion in this report. In addition to analyzing the products, developers contacted users by interview or questionnaire.
Related Materials:	See page 508
Ordering Information:	See page 508

Title: Evaluations of Art Programs for Non-Artist Teachers (EPIE Report #52)

Descriptor: An evaluative report describing three art programs, two visual education programs and resources for teachers of art classes

Publication Date(s): 1973, 39 pp.

Originator: Educational Products Information Exchange (EPIE) Institute

The evaluations in this report were carried out by Joachim Thermal, an artist, art therapist, art educator and art teacher. His works hang in several American museums, and he has published numerous articles on art therapy and art education.

Intended Users: Art teachers and others who are responsible for decisions concerning elementary art curricula.

Purpose/ Content: The purpose of the report is to provide comparative, evaluative information about a number of art programs and resources for art classes. The material in the report is systematically described in terms of four constructs of instructional design--objectives, organizations, methodology and design. However, the report also contains the investigator's subjective judgments about the programs he is describing.

Each art program is described in two parts: a "Basic Description" and a "Commentary." Visual materials from the programs serve as examples of points the investigator is making.

The art programs described are:

- Art: Meaning, Method and Media (Six Levels I-IV), Guy Hubbard and Mary J. Rouse, Benefic Press, 1972
- Guidelines for Learning Through Art, (Eight Series, Grades: 1-8), Clyde M. McGeary and William M. Dallam (Editors), Barton-Cotton, Inc., 1970
- Teaching Through Art (Series A), Robert J. Saunders, American Book Co., 1971

Purpose/ Content: (Continued)	In addition to the art programs, information about a new curriculum area, Visual Education, is presented along with brief descriptions of two visual education programs: ● Learning to See, Kurt Rowland, Van Nostrand-Reinhold, 1968 ● Looking and Seeing, Kurt Rowland, Van Nostrand-Reinhold, 1965
Usefulness Related to CBE:	See page 507
History of Development:	This report is the result of one person's efforts. He has brought his own experience and background as an artist and art teacher into play in the evaluation of the materials in the report. No data are presented substantiating the conclusions he reaches.
Related Materials:	See page 508
Ordering Information:	See page 508

Title:	Materials for Individualizing Mathematics Instruction (EPIE Report #65)
Descriptor:	Analyses of 26 individualized instructional systems in mathematics
Publication Date(s):	1974, 63 pp.
Originator:	Educational Products Information Exchange (EPIE) Institute
Intended Users:	Educational personnel interested in instructional programs in mathematics that feature individualized instruction
Purpose/ Content:	The purpose of the report is to analyze a wide range of available instructional systems in mathematics that stress individualized instruction. The report specifically focuses on how the design of mathematics materials is used to facilitate individualized instruction. Twenty-six materials are described in this report. Each material is analyzed in terms of four constructs which EPIE uses to describe the instructional design of any product. The four constructs are: Basic Description, Organization of Content, Methodology and Evaluation. In addition to information within each construct, EPIE analysts provide supplementary notes and comments about each product.
Usefulness Related to CBE:	See page 507
History of Development:	Products included in this survey were chosen to include as wide a range as possible of producers, areas of math, age/grade levels, etc. Descriptions of products supplied by producers served as the source of information in the selection process. The survey was limited to: (1) materials specifically designed for individualized instruction and (2) those made available in their entirety by the publisher.

History of Development: (Continued)	Products were analyzed under direction of the EPIE Materials Evaluation Office by analysts who had received training in the EPIE analysis system. The report claims that "each product was analyzed independently by at least two analysts." Analysts considered each product in detail and studied any empirical evidence of its effectiveness.
Related Materials:	See page 508
Ordering Information:	See page 508

Title: Secondary School Social Studies: Analyses of 31 Textbook Programs (EPIE Report #71)

Descriptor: Contains systematic, comparative analyses of social studies programs

Publication Date(s): 1975, 96 pp.

Originator: Educational Products Information Exchange (EPIE) Institute

Intended Users: Educators and others who desire information to help them make decisions about the appropriateness of social studies programs in their own local setting

Purpose/ Content: The purpose of the report is to present analyses of 31 textbook programs for secondary school social studies. Each analysis is focused on four specific elements of instructional design of a product:

- Intent of the product
- Organization of the contents of the product
- Methodology for the use of the product
- Means of evaluation of learning provided by the product

The report contains an introductory section and discussions of each selected product according to the elements of instructional design described above. In addition, the analysis of each product contains descriptive and background material, commentary and quotes from EPIE analysts. In contrast to similar EPIE reports, this report features a discussion, in the content section of each product review, of how the product developer dealt with the question of values.

Usefulness Related to CBE: See page 507

History of Development: No information is included on how products were selected for inclusion in this survey.

Thirty analysts were identified with the help of the Social Sciences Education Consortium (SSEC); these persons were trained by EPIE Institute staff in

History of Development: (Continued)	EPIE's system of instructional design analysis. Working in teams of two, the analysts reviewed the products presented in this report. Results were consolidated by EPIE staff members into this report.
Related Materials:	See page 508
Ordering Information:	See page 508

Title: Secondary Social Studies Information Unit--A Review and Analysis of Curriculum Alternatives

Descriptor: A collection of descriptions of 36 secondary social studies programs

Publication Date(s): 1973, 575 pp.

Originator: Sandra G. Crosby (Ed.), Far West Laboratory for Educational Research and Development (FWL)

Intended Users: Teachers and curriculum coordinators who wish to locate and select among alternative secondary social studies programs

Purpose/ Content: The purpose of the collection is to provide descriptive analyses of 36 exemplary secondary social studies programs. The analyses are intended to provide information that will allow users to select a program appropriate to their needs.

The collection contains an Introduction, a Selection Guide and individual descriptions of programs. The Introduction provides the developmental background of the collection, and the Selection Guide lists programs alphabetically under appropriate subject areas.

Each program description contains the following kinds of information:

- Introduction
- Basic Information (short, one or two sentence statements of the name, format, uniqueness content, suggested use, target audience, aids for teachers, availability, developer and publisher of the program)
- Goals and Objectives
- Content and Materials
- Classroom Action
- Implementation Requirements and Costs
- Program Development and Application
- References

Usefulness Related to CBE: The information provided in the description of each program shows that many of the programs make use of behavioral objectives. Thus, this collection would be valuable to the teacher or curriculum developer in a CBE program looking for validated, available social studies programs based on objectives.

History of Development: Developers of this collection state the following criteria for program selection:

1. The central purpose of the development project was to prepare materials for public school students.
2. The materials were developed for courses in social studies.
3. The program was designed for students in grades 7-12.
4. The design and writing activity was undertaken according to a research and development model: new knowledge or concepts about knowledge were incorporated into new teaching materials, tried out in both laboratory and actual classroom settings and then revised on the basis of findings from the field. This process differs significantly from the conventional mode for writing commercially published materials.
5. All materials for the course, including guides for teachers, were published and available for purchase by September 1973.
6. The course comprises a semester or more of study or, if supplementary, no less than two weeks.

Developers add that this collection "includes some programs that do not meet all these criteria but which represent important alternatives to traditional practice and show internal evidence of good quality. It omits a few programs which meet these criteria, because materials were not made available for review. It does not include programs which are entirely devoted to games and simulations because a review of these has been published by the Social Science Education Consortium of Boulder, Colorado (Learning with Games by Charles and Staesklert, SSEC, Boulder, 1973, $4.95)."

Related Materials: None

Ordering Information: Copies of this report are available (Order No. ED 081 669) from:

ERIC Document Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Cost: $1.00 (microfiche), $30.13 (hardcopy)
Plus postage

Title: Social Studies Curriculum Materials: Data Book

Descriptor: A collection of social studies curriculum resources available for use by elementary and secondary teachers

Publication Date(s): 1971 (Supplemented continually), two volumes

Originator: Social Science Education Consortium, Inc.

Intended Users: Elementary and secondary teachers

Purpose/ Content: The developers state that "its primary objective is to encourage and support creative, cooperative work among social scientists and educators in the development and use of elementary and secondary social studies materials in which the content and methods of the social sciences receive the major emphasis."

Each of the curriculum materials is analyzed in the following format:

1. An overview of major points
2. Format, elements and cost of materials
3. Time required for implementation
4. Intended users
5. Rationale and general objectives
6. Content
7. Teaching and gaming procedures
8. Evaluative data, comments and suggestions for use

Five major divisions of curriculum materials are presented: (a) project materials, (b) textbooks, (c) games and simulations, (d) supplementary materials and (e) teacher resource materials. Entries in the project section are alphabetized by institution; in the textbook section by title; in the games and simulations section by name of game.

Usefulness Related to CBE: This collection of innovative, validated curriculum materials is useful in identifying those which are applicable to CBE programs. This can be determined quickly by referring to the section of the analyses called "teaching procedures."

History of Development:

With the increase in the number of curriculum materials available for use, a critical need was seen for an analysis of these materials. The precursor of the current book was a 1967 publication entitled Curriculum Materials Analysis System (CMAS). The data book project was funded by the National Science Foundation. The intent, as the authors state, was to provide "a concise compilation of information based on the CMAS."

The following factors were considered in selection of materials for this collection:

- The availability through commercial outlets
- Accessibility to Consortium staff of completed materials
- Expertise of Consortium staff relative to use of materials
- Advice and assistance of the Consortium membership

There is no indication that field testing or revisions were conducted. However, supplements published twice yearly reflect changes in existing data sheets as well as provide new data sheets.

Related Materials:

There are other publications similar in purpose and format to this data book:

- Educational Product Report, monthly publication of EPIE, in which occasional reports are devoted to social studies
- A Directory of Research and Curriculum Development Projects in Social Studies Education, Marin Social Studies Project
- Directory of Social Studies Curriculum Projects
- Social Studies Education Projects: An ASCD Index, Bob L. Thomas and Thomas L. Groom

Ordering Information:

Write: Publications Orders
Social Science Education Consortium, Inc.
855 Broadway
Boulder, Colorado 80302

Request Publication Number 139 in order to assure expeditious processing

Cost: Two volumes, including all supplements to date: $40.00

Annual subscription (two supplements--standing order): $15.00. Specify month and year subscription is to begin.

INSTRUCTION: SELECTION PROCEDURES

Title: SWRL Instructional Product Selection Kit (IPSK)

Descriptor: The kit enables users to apply an updated set of criteria when selecting instructional resources

Publication Date(s): 1975

Originator: SWRL Educational Research and Development

Intended Users: Anyone concerned with selecting instructional products for use in schools, including textbook adoption committees, administrators, school boards and preservice and inservice teachers

Purpose: Goals: To provide educators with an increased capability for selecting instructional materials that reflect the most recent R&D advances

Objectives: IPSK prepares users to perform the following tasks:

- To identify in instructional programs and materials the presence or absence of criteria presented on the Product Selection Checklist
- To compare competing instructional products according to these selection criteria
- To use the selection criteria for product selection decisions in a variety of contexts

Content: IPSK emphasizes the following selection considerations:

- Outcomes or instructional objectives of the product
- Assessment materials and procedures used for determining outcome attainment
- Reports of previous product use in a variety of school situations
- Instructional and supplementary materials and procedures used to provide instruction and practice on the program outcomes
- Installation requirements of the product, including the training of staff and monitoring the ongoing progress of pupils using the product
- Time and cost considerations
- Social fairness considerations

Usefulness Related to CBE:	This kit prepares the user to discriminate competency based instructional programs from programs which are not competency based and to distinguish other elements of products that indicate their overall quality.
History of Development:	As with other programs designed by R&D laboratories, this product has been extensively tested and revised to insure learner attainment of the program outcomes.
Main Activities:	Main activities occurring throughout the workshop are: ● Participants examine three brochures that describe fictitious elementary school science programs. These brochures were patterned after publisher promotional materials currently on the educational market. ● The three simulated programs are rank ordered by participants as though selecting and purchasing these programs for their own school situations. Participants include brief rationale statements to accompany their rankings. ● A filmstrip, "Guidelines for Selecting Instructional Products," is shown in order to identify and describe criteria for the selection of instructional products. ● The booklet, "Considerations in Selecting Instructional Products," is distributed. The booklet discusses the rationale supporting the selection considerations and contains a checklist which summarizes the criteria in question form. ● Participants then work through a set of Exercise Items to give them practice in applying the specific selection criteria. ● The three simulated science program brochures are re-examined by participants to determine whether they meet each of the selection criteria presented in the workshop. ● A discussion of the rating is conducted and the overall results are used as a basis for which participants re-evaluate their initial program selection. ● Extension activities also may be used for a more extensive examination and discussion of the product selection criteria. ● A separate checklist of "Social Fairness Considerations" is reviewed by participants.

Provisions for Use:

Format: Workshop or inservice sessions. The kit may also be used in a self-study mode.

Personnel: An instructor is required for workshop or inservice use.

Product Components: The kit includes all necessary materials for an instructor and 12 participants. Additional materials may be ordered to accommodate additional workshop participants.

Time Span: A workshop can be scheduled as a single session or a series of two- or three-hour sessions. Estimated total time is three to six hours, depending on the background of participants.

Conditions of Use:

No specialized background or training is required to conduct or participate in the workshop. The workshop coordinator, however, should prepare for the workshop by studying the Instructor Guide and becoming acquainted with all IPSK materials and procedures before conducting the session. IPSK procedures can be modified to meet the needs of each particular audience; the Workshop Coordinator should determine the level of sophistication of the audience and plan on modifying workshop activities accordingly.

Related Materials:

- *Selecting a Curriculum Program: Balancing Requirements and Costs* (See page 533)

Ordering Information:

The kit is available from:

SWRL for Educational Research and Development
Division of Resource Services
4665 Lampson Avenue
Los Alamitos, California 97020

IPSK cost is $30.00 and includes all materials for an instructor and 12 participants. Extra copies of participant materials can be ordered in sets of 12; the cost is $15.00 and $7.50, respectively, for the nonconsumable and consumable participant materials.

Title: The Educational Information Consultant (EIC)

Descriptor: A team-learning program which explores methods of communicating research and development information to the educational practitioner

Publication Date(s): No date given

Originator: Wayne Rosenoff, Project Director, Far West Laboratory for Educational Research and Development (FWL)

Intended Users: This is a training program for linking agents, information center staff, librarians and educational research and development staff. It would also be useful for graduate students in schools of education and library science.

Purpose: The overall purpose of the program is to show learners how to develop the skills, knowledge and attitudes required to function in an Education Information Consultant role.

Goals: The developers state that virtually all students completing the training package achieve "basic skills" levels of competence and the majority achieve "proficiency" or "high proficiency" in EIC competencies.

Objectives: There are five major processes which the learner should be able to perform at the completion of training:

1. Negotiation: Identification, definition and analysis of the problem and attendant information needs of a client
2. Retrieval: Development of a search strategy to locate, identify and secure R&D information pertinent to the client's problem and request
3. Transformation: Screening, analysis, synthesis and organization of results of the search into a format appropriate for delivery to the client
4. Communication: Display and communication of the results to the client in a style appropriate for his/her use in finding a solution to the problem
5. Evaluation: Assessing the pertinence of the major EIC processes, overall role and operational effectiveness within the linkage system; reformulation based on evaluation and adjustments made in EIC processes and functions

Content: The major topics covered in this program are communication, negotiating the educational problem, retrieval of information, transformation and evaluation of outcomes.

Each one of the major topics is the focus of one unit, or module, of training. In addition, there is an introduction module describing the emerging role and functional contexts of the EIC and a simulation model providing an orientation to the skills involved in each process. The modules are introduced in a fixed sequence.

Usefulness Related to CBE: The training of linking agents is emerging in response to the need for information dissemination services in education. The role of the EIC can be seen as critical in a district needing to resolve specific curricular, instructional and administrative problems relative to CBE.

In addition, the skills taught in this program will provide the learner with tools which also can be directly applied to their own research, retrieval and utilization needs.

History of Development: The program was field tested using all three "learning forms" (four courses, four institutes and eight learning teams). These were conducted in 16 sites in nine states.

The accomplishment of almost every training objective was demonstrated by completion of a document or documents. The skills-oriented dimensions of the training prescribe that the learning exercises be actual operations which result in tangible trainee-produced products and information packages. In summary, 97 percent of the course and institute participants (N=144) completed the training and achieved basic skill level (2.0 on a 4-point scale) competence. Moreover, 74 percent of the course participants and 65 percent of the institute participants completed information packages that were rated at level 3.0 or 4.0, indicative of "Proficient" or "High Proficiency" levels of performance. Of the learning team participants who completed the training and submitted information packages (N=17), 89 percent completed packages that were rated at basic skill level, while 71 percent completed packages that were rated at the higher levels of proficiency. The raters were staff members of the developer agency trained for this particular task.

History of Development: (Continued)

Careful attention was given to each stage of development of this training package. An advisory committee was formed to establish the model of the EIC role and to define the functional elements to be included in it. A three-phase pilot testing occurred in the first development year, followed by extensive revision. Subsequently, the operational field testing established the effectiveness and transportability of the three learning forms.

The final report of the project in which this training was developed and validated is available.

Main Activities:

Knowledge, skills and affective behaviors in each process are demonstrated in a sequential, modular configuration. The approach is to provide the trainee with a meaningful orientation to the whole EIC role and an opportunity to master tasks during training in the order that they are performed on the job. Instructional activities in each module have three phases: (1) preparation, (2) learning and (3) application. Student-centered learning exercises feature group and individual activities including role playing, problem solving, simulation and decision making exercises.

Provisions for Use:

Format: To accommodate a variety of audiences and environments, training was developed in three forms: course, institute and learning team, which differ primarily in scheduling, format and procedures.

Personnel: An instructional manager familiar with EIC materials and their use is needed for all formats.

Product Components: The EIC Training Manual is a workbook containing readings, exercises, sample forms and other job aids developed for use by trainees. It is a consumable item, normally to be purchased by each participant. The EIC Guide to Instructional Management is a loose-leaf notebook containing schedules, training plan, instructional goals, background readings, detailed directions for handling each learning element and evaluation guidelines material for the instructional manager. This guide is needed only for the course or institute forms.

Time Span: The training is organized in a series of instructional modules. The course form is designed to fit the 15-session pattern of a college semester schedule. The actual instruction time totals approximately 45 hours. The institute form requires ten six-hour days to complete and is suitable for summer school courses or on-the-job training. The

Provisions for Use: (Continued) learning team form is designed to be self-administered by a group of at least three trainees and monitored through correspondence with an instructional manager. The schedule for this form calls for ten team sessions (a team consists of three to six members) and approximately 30 hours of individual activities. Average time to complete this form is approximately ten weeks.

Conditions of Use: Operational field testing indicates that both the course and the institute form work well and that the materials are sufficient to enable instructional managers with varying backgrounds and experience to effectively administer the training and achieve the student outcome standards. A generally low completion rate for the learning team form indicates that this form is not as successful and probably should be undertaken only where there are strong incentives and a highly competent and accessible instructional manager. A learning team form combines the concept of group dynamics with the already proven concept of independent study to create a unique, self-directed, small-team learning model. The basis for the learning team form consists of elements similar in content to those in the other two forms, but the directions are written to make the materials self-instructional. The unit is self-contained, but the instructional manager may augment its content with additional readings or other materials.

Related Materials:

- Educational Development, Dissemination, and Evaluation (DD&E) Training Resources (See page 601)

Ordering Information:

Write: University Extension
University of California
Berkeley, California 94720

Cost: $65.00 for an independent study credit course. If a learning team form is used, add $15.00 per team for A-V materials.

$16.50 for printed materials alone (Training Manual)

This description was adapted from Catalog of NIE Education Products and Educational Dissemination and Linking Agent Sourcebook.

Title:	Selecting a Curriculum Program: Balancing Requirements and Costs
Descriptor:	A self-instructional training unit which provides a six-step model of the process of selecting an improvement program to meet local needs
Publication Date(s):	No date given
Originator:	Glen Heathers, Project Director, Research for Better Schools, Inc. (RBS)
Intended Users:	Anyone in a leadership role in local educational improvement programs should find this program to be useful. The program also can be of value for graduate students in administration or supervision.
Purpose:	The product is organized as a model for the process of selecting an improvement program that involves identifying needs for improvement, surveying resources that could meet these needs, analyzing local factors related to adopting different changes and choosing the changes to be introduced. Goals: Teams working together through this program should carry out the complete selection process. The selected alternative is to be compatible with the school district's requirements and budget. Objectives: No specific program objectives are stated. The product consists of a volume organized in terms of eight objectives.
Content:	The product contributes to knowledge and skills required in offering leadership in planning and conducting any local educational improvement program. The product presents a six-step model of the process of choosing an improvement program. The steps are: identifying the area where improvement is needed, specifying aims in the area, assessing shortcomings in accomplishing these aims, determining likely causes of the shortcomings, identifying resources that could remedy the shortcomings and surveying local factors favoring or opposing adoption of any desired resources, and selecting the improvement program to be adopted.

Content: (Continued) Case materials and associated exercises with answer keys are included to give the student practice in applying the conceptual materials offered. The product also includes preassessment and post-assessment exercises, with answer keys.

Usefulness Related to CBE: *Selecting an Educational Improvement Program* (Unit 8) is a training product that provides a conceptual model for use in the process of helping school system personnel choose an improvement program that will meet their needs.

History of Development: There is no information available relative to the product's development or effectiveness with users.

Main Activities:

- If curriculum alternatives are not already provided to teams, identification and search activities are initiated, paralleling in procedure but not intensity the activities suggested in *Curriculum and Instruction: Planning Improvement* (See page 425).
- Team sets selection criteria.
- Team gathers cost and requirements information.
- Team compares alternatives and selects a program.

Provisions for Use: *Format*: Team participants work as a group in on-the-job situations. The program can be used in a three-day workshop mode but would require leadership of someone familiar with the approach.

Personnel: The product can be studied on a self-instructional basis or with assistance from an instructor. An instructor's guide is provided for use with this product and other units of the training program. The student can use this product separately or in combination with other selected units of the training program.

Product Components: The basic training unit, *Selecting a Curriculum Program: Balancing Requirements and Costs*, contains four sections: (1) Identifying Screening Criteria and Suitable Programs, (2) Establishing Selection Criteria, (3) Analyzing Alternative Programs and (4) Comparing Alternatives and Selecting a Program. A project manager's appendix is also included.

Time Span: About six hours is needed for an individual to read materials and from two to three months for a team to carry out a selection process.

Conditions of Use: Materials are intended for on-the-job applications. A team approach is strongly recommended but not required. A typical team may include a project manager (often a central office administrator

Conditions of Use: (Continued)

or curriculum coordinator), one or two principals and one or two teachers. Release time is necessary to complete staff work.

It is recommended that the student use Unit 1, Training Program Introduction and General Study Plan Guide, in deciding to study this and other program units. It is usable in planning study for any of Units 2-8 of the training program. Also, the instructor can decide for the student that this product should be studied. It is further recommended that the student first use Unit 3 of the training program, Task Improvement Programs, since that unit covers the full process of planning and conducting improvement programs.

Related Materials:

- Curriculum and Instruction: Planning Improvement (See page 425)

Ordering Information:

Write: Research for Better Schools, Inc.
1700 Market Street
Philadelphia, Pennsylvania 19103

Cost: $6.00 for a single volume for each participant. Component parts are also available.

• Unit 1--Training Program Introduction and General Study Plan Guide	$3.00
• Instructor's Guide	$2.00
• Unit 8--Selecting an Educational Improvement Program	$5.00

This description was adapted from Catalog of NIE Education Products and Educational Dissemination and Linking Agent Sourcebook.

Title: Selecting and Evaluating Beginning Reading Materials--A How-To Handbook (EPIE Report #62/63)

Descriptor: A report which describes a process for analyzing and selecting reading materials

Publication Date(s): 1974, 105 pp.

Originator: Educational Products Information Exchange (EPIE) Institute

Intended Users: Primarily for educators engaged in the task of analysis and selection of reading materials

Purpose: This report was developed to help educators:

- Make informed choices among available alternative reading programs
- Match characteristics of reading programs to local needs
- Learn to utilize systematic processes of instructional design analysis

Goals: None stated

Objectives: None stated

Content: There are five sections to this report. In the first section an historical survey of important developments in ways of improving reading instruction is presented. The second section presents the instructional design elements used by EPIE in evaluating educational products. Section three presents an extensive checklist to be used in clarifying one's own approach to reading instruction. Information about the role of materials in reading instruction and in learning to read is presented in section four. The final section charts the various tasks that need to be carried out in order "to set materials selection in the wider context of school policy-making, community characteristics and needs, curriculum development, staff training, and other related activities."

Usefulness Related to CBE: The processes for instructional materials selection could be helpful in assisting persons to make rational decisions about products that would be appropriate in a CBE context.

History of Development:

Based on the work of Dr. Maurice Eash of the University of Illinois, Chicago Circle, EPIE has developed an approach to the analysis of instructional design that supports much of this report as well as many of EPIE's reports on instructional programs.

No data about the development of this approach are presented, nor are data presented that substantiate the effectiveness of the processes in the report under discussion.

Main Activities:

A section, "How to Use This Report," describes a set of suggested steps that call for reading each section of the report then applying the new information to one's own instructional setting.

Provisions for Use:

Format: A self-instructional booklet for individual use
Personnel: No information is presented about personnel needed to compile instructional analysis tasks.
Product Components: The materials consist of written textual materials supplemented by checklists, all of which are contained in the report
Time Span: No information is presented about the length of time needed to engage in tasks

Conditions of Use:

No constraints on the use of this product are foreseen. The highly general and informal suggestions about its use suggest that it would be highly flexible and adaptable.

Related Materials:

- Educational Products Information Exchange (EPIE) Educational Product Reports (#52, 64, 65, 68, 69/70, 71) (See page 507)

Ordering Information:

Copies of this report are available from:

EPIE Institute
463 West Street
New York, New York 10014

Cost to nonmembers of EPIE is $20.00 per copy, with discounts available for quantity purchases. EPIE members receive a 50 percent discount.

Title: Elementary Science Information Unit

Descriptor: A multimedia review of six science curricula to aid school personnel in deciding which of the programs suit their own situations

Publication Date(s): 1970

Originator: C.L. Hutchins, Project Director, Far West Laboratory for Educational Research and Development (FWL)

Intended Users: Administrators and teachers in elementary schools, preservice trainees, science consultants and instructors in curriculum methods.

Purpose: Goals: This information unit will assist school decision makers in gaining information about and selecting among some of the major federally funded elementary science curriculums. It will also provide a multimedia model to help train educators in the process of curriculum decision making. Objectives: There are no specific objectives stated for this project.

Content: This product reviews and compares six science curriculums to aid school personnel in deciding which of the programs best suit their own situations. Conceptually Oriented Program in Elementary Science (COPES), Elementary Teaching Project (MINNEMAST), Science Curriculum Improvement Study (SCIS) and Science Process Approach (SPA) are all described in parallel fashion. An introductory booklet outlines procedures to be followed in the review process. A review booklet gives readers a brief introduction to all six programs. After being compared and contrasted via an introductory filmstrip-audiotape, each program is reviewed in a color audiovisual presentation and a 30- to 40-page detailed booklet description.

Usefulness Related to CBE: Once a district's needs have been identified, curriculum decision makers should be ready to make their choices from options meeting predetermined local criteria. This product should be of great assistance in this task.

History of Development:	During development and field testing and in the several years that the product has been distributed and used nationally, no difficulties have been revealed. The content of the material is now somewhat dated since development work ended in 1970 and the only supplement was released in 1971. However, the product as a decision making model has been validated thoroughly, as reported in An Educational Development Case Study. A more current description of each of the six programs is provided in ALERT, A Sourcebook of Elementary Curricula Programs and Projects (See page 501)
Main Activities:	The group views an introductory filmstrip with cassette tape, then surveys the various curricula indepth through filmstrips and detailed program reports.
Provisions for Use:	Format: The information unit is planned for use by groups responsible for science curriculum decisions at the school district level. Personnel: In preservice training programs, an instructor would make student assignments, but in a school district, leadership in the use of the unit might be assigned by the district office. Product Components: Seven filmstrips and eight booklets (plus supplement), a filmstrip projector and reel-to-reel audiotape recorder are required. Time Span: Reviewing, reading and discussion could be accomplished in one day. However, use over a period of several weeks is recommended.
Conditions of Use:	There are no constraints or previous experience required in using this product.
Related Materials:	None
Ordering Information:	Write: Universal Research Systems, Inc. 363 South Taafee Street Sunnyvale, California 94068 Cost: Boxed multimedia: Elementary Science Information Unit $75.00 Additional copies of eight booklets $ 1.00

This description was adapted from Catalog of NIE Education Products.

Title: Research Utilizing Problem Solving (RUPS)

Descriptor: An instructional program to give teachers and administrators skills and techniques in retrieving and utilizing knowledge used in resolving problems

Publication Date(s): 1973 (Revised Edition)

Originator: Charles Jung, Improving Teaching Competencies Program, Northwest Regional Educational Laboratory (NWREL)

Intended Users: Teachers and administrators

Purpose: Goals: There are two goals for this program. One is to try the steps of the RUPS process as a way of working toward improvements in the school setting. The second is to try some ways of increasing teamwork skills.
Objectives: There are no objectives stated for this project.

Content: The RUPS instructional system has two versions, one for teachers and one for administrators. The program provides knowledge, skills and techniques for retrieving and utilizing knowledge while in the process of identifying and diagnosing classroom or school problems and designing action plans to resolve them. Evaluation becomes a pattern of repeated objective diagnosis in this process.

Participants develop skills for using a five-step scientific method: (1) identify the problem, (2) diagnose the problem situation, (3) consider alternative actions, (4) try out an action plan, (5) adopt the plan. Each instructional sequence provides: purpose, objective, leader preparation, list of participant materials and procedures. School personnel who complete the training program learn to use techniques for defining, analyzing and solving problems.

Usefulness Related to CBE: Competency based programs are emerging at a rapid pace in education. This as well as other trends result in experimentation and research to produce a vast amount of resources for improving the quality of education. New kinds of curriculum and

Usefulness Related to CBE: (Continued)

instructional approaches are being developed. It is becoming increasingly feasible to provide teaching strategies that make use of a multitude of resources and guarantee learner outcomes. However, the teacher will need to develop skills in information utilization as found in this program.

History of Development:

This system was designed with the intention that nonexperts would be able to conduct workshops. During the interim testing, the developers observed nonexperts successfully conducting workshops at Atascadero, California, and at Issaquah and Ellensburg, Washington. No developers were involved in five of the field test workshops. The wide use of this system throughout the United States and in several other countries during the past three years supports a claim of easy replicability.

Field tests of this instructional system were conducted between 1969 and 1972, with 220 volunteer trainees from six field sites--one in Montana, one in California, two in Texas, one in Washington and a national educational research group meeting in Chicago, Illinois. Data collected from these trainees provide the following results:

1. Seventy-six percent of the trainees perceived the training to be satisfying and worthwhile. Most of the negative responses came from two sites--one where many problems were reported and participants were strongly directed to attend the workshop and another where participants had recently experienced positive effects of a "sensitivity training" workshop. At the latter, many objected to the comparatively high degree of structure in the RUPS design. These results, plus evaluations from earlier trials and evaluations shared with the developers from other settings, indicate a high degree of satisfaction among RUPS participants if they have appropriate expectations and have chosen to experience this workshop.
2. An analysis of the mean scores from 137 participants who responded to a 34-item test administered before and after the training showed statistically significant cognitive gain.
3. Fifty percent of respondents to a followup questionnaire six months after the training reported making some applications of skills learned.
4. A follow-through impact study of classroom effects by teachers who receive this training was concluded in 1975.

History of Development: (Continued)

5. An independent evaluation study conducted at the University of Idaho found that teachers showed significant attitude change in addition to cognitive and skill gains.

This system was developed over a four-year period. It involved repeated rounds of trial and revision with K-12 teachers and administrators. Evaluation included pilot trials, interim formative testing and a summative field test where developers were not involved.

Main Activities:

Emphasis of the entire design is on teachers and administrators practicing their "do it" skills to perform the problem solving process. Continuous active participation is demanded by using a simulation situation in which the trainee "helps" a fictitious teacher/principal solve a problem using the RUPS model. RUPS provides teachers and administrators with competencies in:

- Applying four guideline criteria for writing a problem statement
- Paraphrasing in interpersonal communications
- Using the force field diagnostic technique
- Selecting and creating instruments for data gathering
- Diagnosing teamwork relationships
- Spotting and analyzing major results in data collected
- Identifying one's personal style of operationalizing dimensions of teamwork behaviors
- Utilizing concepts and skills of giving and receiving feedback
- Using criteria for deriving implications from research findings
- Brainstorming action alternatives to meet implications derived from findings
- Applying guidelines for planning and implementing action alternatives
- Identifying and evaluating small group dynamics
- Planning a backhome project
- Evaluating solution plans
- Conducting a backhome RUPS project

Provisions for Use:

Format: Designed as a teacher inservice workshop.
Personnel: The basic learning group is a sextet in which teachers/administrators train each other using criteria provided in the materials. A workshop leader gives instructions from a manual guiding teacher/administrator trainees through the design. The workshop leader needs to be familiar with the materials and design but does not need to be an expert in the RUPS process.

Provisions for Use: (Continued)

Product Components: There are two sets of materials for RUPS workshops. Both versions treat the areas of problem solving and teamwork skills with the following materials:

- Participant materials divided into 16 units of instruction with accompanying exercises and test
- Leader's guide provides an instructional strategy for each of the units as well as a statement of purpose, objectives and rationale
- Text--Diagnosing Professional Climate of Schools (Administrator version) and Diagnosing Classroom Learning Environments (Classroom version)
- Audiotapes accompany and are keyed to each of the texts

Time Span: The design calls for a five-day workshop followed by two three-hour meetings while engaged in a backhome application project using the RUPS process.

Conditions of Use:

The recommended workshop arrangement is to cover the first 14 units in a five-day workshop. The last two units are then presented as followup. The group should be limited to 24-30 participants. The exercises are designed for groups of six.

Related Materials:

Other workshops of the Improving Teaching Competencies Program are:

- Interpersonal Communications (See page 275)
- Preparing Educational Training Consultants: Skills Training (PETC I) (See page 293)
- Preparing Educational Training Consultants: Consulting (PETC II) (See page 297)
- Preparing Educational Training Consultants: Organizational Development and Organizational Self-Renewal (PETC III) (See page 301)
- Interpersonal Influence (See page 305)
- Social Conflict and Negotiative Problem Solving (See page 309)

Ordering Information:

Write: Commercial Educational Distributing Services
8116 S.W. Nimbus
Beaverton, Oregon 97005

Cost: Classroom Version

Participant Materials (281 pp.)	$ 8.50
Leader's Guide (282 pp.)	11.60
Text	4.75
Audiotape	3.85

Ordering
Information:
(Continued)

Administrative Version

Participant Materials (287 pp.)	$ 8.50
Leader's Guide (287 pp.)	11.75
Text	7.95
Audiotape	3.80

Prices include shipping charges.

Title: Computer Applications in Instruction: A Teacher's Guide to Selection and Use

Descriptor: A guide designed to prepare elementary and secondary teachers to select and use computer-related instructional application materials

Publication Date(s): Fall 1978

Originator: Judith B. Edwards, et. al., Northwest Regional Educational Laboratory (NWREL), Portland, Oregon

Intended Users: Teachers, curriculum coordinators and administrators desiring to select and use computer-enhanced instructional units

Purpose: The purpose of this guide is "to acquaint the user with the rudiments of computer hardware, computer programming languages, the different roles the computer may play in instruction, and how the computer is used in several different curriculum areas." Further, these materials "are intended to teach the user how to evaluate and select an instructional computer application that is appropriate to his or her needs."

Content: The material is divided into four sections. The first introduces the fundamental aspects of computer hardware and software. The second section describes several roles the computer can play in instruction. The third section "is designed to teach the user how to select instructional computer applications which are appropriate to his or her needs." Part IV contains 15 articles which introduce the user to potential computer application in specific curriculum areas.

Usefulness Related to CBE: The materials provide teachers, administrators and curriculum coordinators with materials for developing "computer literacy."

History of Development: These materials were tested by the Minnesota Educational Competency Consortium in workshop settings. Five groups of elementary and secondary teachers used these materials during five summer workshops. Developers report that the instructional objectives of the materials were attained. No evaluative data are available from those sessions.

Main Activities:	Participants engage in activities requiring them to run computer programs and utilize the data which result. When a computer terminal is not available sample runs included in the guide may be utilized.
Provisions for Use:	Format: Workshop setting Personnel: A trained instructor. Prior training is helpful but not essential. Time Span: Approximately 20 hours
Conditions of Use:	Instruction must be conducted by persons trained in computer use and computer access is recommended for implementation.
Related Materials:	• Relevant Educational Applications of Computer Technology (REACT) Course I (See page 707) • Relevant Educational Applications of Computer Technology (REACT) Course II (See page 647) • The Computer in Educational Decision-Making: An Introduction and Guide for School Administrators (See page 699)
Ordering Information:	Write: Time Share Corporation Computer Publications 630 Oakwood Avenue West Hartford, CT 06110 Cost: School price $8.90 (soft cover) Plus shipping and handling

Title: Material Selection. B-1. Evaluating and Selecting Learning Materials. Document No. 10d, Revised. Independent Study Training Material for Professional Supervisory Competencies

Descriptor: A self-instructional learning packet on learning material evaluation and selection

Publication Date(s): 1975, 35 pp.

Originator: Joan DeLuca, Texas Education Agency, Austin, Texas, in conjunction with the Department of Educational Administration of Texas University, Austin, Texas

Intended Users: Educators responsible for selecting and evaluating learning materials

Purpose: To provide the user with an effective procedure for identifying timely, durable and cost-effective learning materials

Content: This packet focuses upon the selection of school library material and includes consideration of books, printed matter and instructional media. The recommended procedure considers such factors as cost versus usage, material durability, timeliness and handling of controversial items. An annotated bibliography identifies selection tools or sources of media information. Other discussions focus on how to handle donations, on selection periods and on the formation of a committee to implement a selection policy.

Usefulness Related to CBE: The process for materials evaluation and selection described in this learning packet may be useful to those selecting products to be used in the CBE context.

History of Development: This packet is one part of a competency-guided program for instructional supervisor preparation developed by the Special Education Supervisor Training Project at the University of Texas. It was developed locally to meet the need for study material to supplement formal training and field experience. According to the author, the packets have undergone extensive evaluation and revision. However, no data on the development, tryout or revised package are presented in this report.

Main Activities: The user is led through a series of steps utilizing resources provided to complete the assigned task.

Provisions for Use:

Format: A self-instructional packet for individual use

Personnel: No additional personnel are needed.

Product Components: The packet consists of written textual materials supplemented by a self-evaluation worksheet and a materials selection posttest worksheet.

Time Span: No information is provided about the length of time necessary to complete the task.

Conditions of Use: A directory of learning material should be made available for use in completing the activities in this packet.

Related Materials:

- Designing a Study of Available Resources. B-3 Evaluating the Utilization of Learning Resources (See page 551)

Ordering Information: This document is available (Order No. ED 120 986) from:

ERIC Document and Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Cost: $.83 (microfiche) $2.06 (hardcopy)
Plus postage

Title: Designing a Study of Available Resources. B-3. Evaluating the Utilization of Learning Resources

Descriptor: A self-instructional learning packet detailing a process for determining the appropriateness of learning resources

Publication Date(s): 1975, 44 pp.

Originator: Billie Grace Heering, Texas Education Agency, Department of Educational Administration, Texas University, Austin, Texas

Intended Users: Educators involved in evaluating the appropriateness of various learning resources

Purpose: The purpose of this learning packet is to provide the user with an effective procedure for designing and conducting a study to determine the extent and appropriate utilization of an array of learning resources.

Content: This packet provides a process for determining the appropriateness of both instructional and resource materials. Users of the packet collect information regarding available materials, who uses them, how effectively they are used and what materials are not being utilized. A final section entitled "Applying the Results of the Materials Utilization Study" provides suggestions for ways the user may proceed after completing the instructional materials study.

Usefulness Related to CBE: The process for materials evaluation described in this self-instructional learning packet may be useful to those seeking a method for assessment of CBE-related learning resources.

History of Development: This packet is one part of a competency-guided program for instructional supervisor preparation developed by the Special Education Supervisor Training Project at the University of Texas. The packets were developed locally to meet the need for study material to supplement formal training and field experience. According to the author, the packets have undergone extensive evaluation and revision. However, no data on the development, tryout or revised packet are presented in this report.

Main Activities:	The user is led through a series of steps to collect preliminary information and conduct the formal study of materials utilization. A bibliography is provided to aid in locating other sources of information on evaluating the utilization of learning resources. The user then embarks upon the task described on the "Task Assignment" sheet. Upon completion of the task, the user employs the "Self-Evaluation Checklist" and the "Posttest" to measure accomplishments.
Provisions for Use:	Format: A self-instructional packet for individuals. Personnel: Completion of this packet requires the observation of materials in use and interviews with both classroom teachers and students using the resources. Product Components: The packet consists of written textual materials supplemented by a self-evaluation check list and a posttest worksheet. Time Span: No information regarding the amount of time required for completion of the activities in this packet is provided.
Conditions of Use:	A directory of learning material should be made available for use in completing the packet activities. Also, the user should have access to classrooms, teachers and students in order to observe materials in use and interview users of those resources.
Related	• Material Selection. B-1. Evaluating and Selecting Learning Materials. Document No. 10d, Revised. Independent Study Training Material for Professional Supervisory Competencies (See page 549)
Ordering Information:	This document is available (Order No. ED 120 985) from: ERIC Document and Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: $.83 (microfiche) $2.06 (hardcopy) Plus postage

INSTRUCTION: DEVELOPMENTAL INSTRUCTIONS

Title: Instructional Development Institute (IDI)

Descriptor: A 40-hour training program designed to provide initial skills and competencies in applying instructional systems principles to learning and teaching problems in a local school or school district

Publication Date(s): Revised training program scheduled for release in fall 1977

Originator: Originally funded by USOE; now a National Special Media Institutes Project supported by United States International University, under the direction of:

Dr. Jack Edling and Dr. Dale Hamreus
United States International University
8655 Pomerado Road
San Diego, California 92124
(714) 271-4300

Intended Users: The training program is designed for use by large and small groups made up of teachers, administrators, (district level superintendents, assistant superintendents of instruction, principals and assistant principals), board members and curriculum content and media specialists.

Purpose: Developers claim that the overall purpose "is to assist school systems with limited resources, substantial numbers of academically or culturally deprived students, and a real desire to find innovative and effective solutions to consequent learning, and instructional problems."

Goals: Two program goals state that participants will:

1. Be motivated toward instituting changes and new programs in their schools and districts
2. Be provided training in the skills necessary for instituting change and new programs

Objectives: Specific objectives are listed for each of the seven units in the program listed under "Content."

Content: There are seven contiguous and related units: Unit 1: The Context of Instructional Development; Unit 2: Introduction to the Instructional Development Process; Unit 3: Innovation Interaction

Content: (Continued)	Game; Unit 4: Problem Definition and Organization; Unit 5: Specification of Objectives; Unit 6: Specification Methods; Unit 7: Evaluation and Implementation. This can be more succinctly stated by listing the steps of the "functional model," which is also the basis for the IDI program: 1. Define problem 2. Analyze setting 3. Organize management 4. Identify objectives 5. Specify methods 6. Construct prototypes 7. Test prototypes 8. Analyze results 9. Implement/recycle
Usefulness Related to CBE:	An important step in the CBE process is program improvement. Once an instructional problem has been identified at this step, it is necessary to develop feasible alternative plans. IDI will provide training necessary for local personnel to accomplish the latter.
History of Development:	As of December 1974, more than 400 institutes had been held, involving over 20,000 participants. Materials and methods are revised periodically as pre- and posttest data are generated. Summaries of this evaluation documentation are available through UCIDT headquarters. IDI training programs have enjoyed a wide acceptance in school districts and have been found successful in generating plans for instructional improvements.
Main Activities:	The institute includes both large and small group activities consisting of simulations, games, media presentations, opportunities to generate plans and materials on selected local problems, and opportunities to analyze and evaluate both individual activities and the program as a whole. Unit tests provide immediate feedback.
Provisions for Use:	Format: The program is administered by a team of four people. Personnel: The IDI will accommodate only 50 participants at one time. The four-person team selected must receive eight days of training in order to conduct the institute. Product Components: The institute consists of a complete system including print and nonprint materials: ● Teacher's Manual (three volumes) ● Twenty-seven slide/tape presentations ● Fifteen 16mm films

Provisions for Use: (Continued)	• Five programmed tapes • Games • Print materials--workbooks, reference sources, examinations and information sheets Facilities must include a projection room along with necessary multimedia equipment. In addition, five smaller rooms are needed for small group meetings and activities. Time Span: Forty classroom hours of instruction are divided into eight sequential units to be completed in sessions two days a week over a three-week period.
Conditions of Use:	Developers state that "the only prerequisite of this system is that the learner be actively involved in determination of educational curriculum."
Related Materials:	None
Ordering Information:	For further information contact: Dr. Dale Hamreus United States International University 8655 Pomerado Road San Diego, California 92124

Title: Designing Effective Instruction (formerly Principles and Practices of Instructional Technology)

Descriptor: A 15-unit workshop in which curriculum specialists write objectives and design and evaluate instruction

Publication Date(s): 1970 (Second Printing)

Originator: General Programmed Teaching (GPT)

Intended Users: The materials in this kit provide the user with comprehensive study in instructional materials development. It would be most appropriately used by specialists involved in materials development applicable to classroom teachers.

Purpose: This workshop approaches the complex process of teaching with the assumption that every teacher is an "instructional technologist." It begins with a basic approach to instruction and becomes increasingly more involved with specific considerations in developing instructional materials.
Goals: The goal of the workshop is to assist participants in the "design of effective instruction."
Objectives: Each of the 15 units has three to ten specific behavioral objectives stated. The example shown here is from Unit 7, Entry Level Tests:

1. The student will name the two design documents used in developing an entry level test.
2. Given three entry level profiles, the student will describe the entry level of each in relation to the course.
3. Given guidelines, the student will develop a "student contract" as one method of individualizing.

Content: The units included in this kit cover the following areas:

1. Introduction to Basic Principles
2. General Goals, Affective Objectives and Cognitive Objectives
3. Main Components of an Objective: Behavioral Terms, Conditions and Standards
4. Classification of Objectives
5. Criterion Tests
6. Determining Entry Level

Content: (Continued)	7. Entry Level Test 8. Stimulus and Response 9. One-Way and Two-Way Stimulus Response 10. Content Analysis 11. Stimulus Response Pairs in Chain Activity 12. Influence of Objectives and Deriving Content 13. Developing Objectives and Deriving Content 14. Programmed Lesson Plans and Instructional Media 15. Validation A glossary of terms is included.
Usefulness Related to CBE:	As it relates to the specialist in materials development, this workshop could be of value in implementing a sophisticated program of teamwork involving the specialist and classroom teachers.
History of Development:	The original product was partially funded by USOE. The developers state that two years were devoted to the production, but quantitative or qualitative data on the product's effectiveness are not included. Teachers from a school district in New York made extensive "comments," and a field test was undertaken by one professor at San Francisco State College, but there is no statement to indicate whether or how the comments and feedback were used for revision.
Main Activities:	Users individually or in groups view a sound filmstrip for all but three of the units. Each participant is given a workbook in which objectives and a glossary are written for each unit. In addition there are questions to be answered during the filmstrip viewing. The three units which do not include filmstrips provide an activity applying concepts that have been covered to that point.
Provisions for Use:	Format: This multimedia kit may be used by individuals or small groups. Personnel: The number of participants should not exceed twenty. The DEI was designed to be administered by a monitor to a group. The monitor requires no special skill or instruction. A monitor manual includes guidelines, exercise checklists, tests and answers. All activities are directed by an audiotape which is supported by full color filmstrips. Product Components: The workshop kit includes 15 audiotapes, 12 color filmstrips, ten participant workbooks, a monitor's manual and a scriptbook. Time Span: The actual completion time for the workshop is 20 hours, to be scheduled according to individual timelines.

Conditions of Use: The participants need no special prior instructions, although some familiarity with developing instruction is recommended.

Related Materials: None

Ordering Information:

Write: General Programmed Teaching
6821 Reistertown Road
Baltimore, Maryland 21215
(301) 358-7810

Cost:

Audio on cassettes	$725.00
Workbooks	7.50
First five units with audio on cassettes	60.00 per unit
Workbook for first five units	3.20

(Discounts are available for all quantity orders)

Title: Learning System Design (LSD)

Descriptor: A multimedia series which outlines techniques of instructional design for use in preservice or inservice

Publication Date(s): 1973 (Teacher's Manual and Student Workbook); 1974 (Textbook)

Originator: Allen J. Abedor (assisted in development), Lawrence T. Alexander, Robert H. Davis and Stephen L. Yelon, Michigan State University

Intended Users: Students in preservice training, teachers in inservice training and for training in business, industry and the armed services

Purpose: The authors feel that instructional design should be a function of the classroom teacher.

Goals: There are three major goals identified by the authors of this series: (1) analyze subject matter, (2) design learning systems and (3) evaluate learning systems.

Objectives: Units in this series are preceded by a statement of a terminal objective and enabling objectives. The following example has been taken from Unit 1--Overview of Learning Design:

Terminal Objective

You will be given a filmstrip-tape presentation which illustrates a well designed learning system. After viewing the filmstrip-tape presentation, you should be able to recognize: a description of the current state of the system, a learning objective, a task description, and an evaluation plan.

Enabling Objectives

- Match instructional problems with their causes described in the chapter.
- Recognize the components of the learning system design process.
- Given a list of assumptions, correctly identify those that underlie the learning system design process as described in the book.

Purpose:
(Continued)

There are "chapter objectives" included in the textbook as well. For example, after reading Chapter 1 (Overview of Learning System Design) the student should be able to:

- Match instructional problems with their causes
- List components of the learning system design process
- Given a list of assumptions about teaching and learning skills, correctly identify those that underlie the learning system design process as described in this chapter

Content:

Chapters in the text include learning objectives, questions by which the reader may gauge learning and end-of-chapter test. Students practice material presented in the chapters through the ten units in the workbook and filmstrip-tape presentations. The Teacher's Manual describes each unit, provides lesson plans and suggests discussion topics and assignments for each unit.

Textbook, workbook and filmstrip-tape presentations work interdependently. The pattern usually begins with required reading from the text. Material introduced in reading is further explained with examples in the filmstrip-tape presentation. Users then apply this information to writing assignments in the workbook.

Topics in the units:

- Unit 1 is an overview of Learning System Design.
- Unit 2 covers developing and writing learning objectives.
- Unit 3 is on evaluation of learning systems.
- Unit 4 is on task descriptions.
- Unit 5 covers two topics: types of learning and analyzing learning tasks into their component types of learning.
- Unit 6 discusses general principles of learning and motivation.
- Unit 7 covers the learning and teaching of concepts and principles.
- Unit 8 concentrates on the learning and teaching of problem solving.
- Unit 9 is devoted to learning and teaching perceptual motor skills.
- Unit 10 discusses the system approach to instruction.

Usefulness Related to CBE:

Concepts and principles presented in this product should be useful to any student interested in the learning system design process.

History of Development:

Volunteer students were obtained from one section of a course. They were told that a new text and set of AV materials were being developed and feedback was needed from representative students in order to identify major instructional problems and design appropriate revisions.

For ten weeks, the students met with the authors in two-part formal debriefing sessions devoted to (1) an analysis of comments and reactions regarding the text and (2) viewing and feedback on the AV materials. During the first part of the session, problems were identified in the text and a consensus was obtained regarding revision.

In the second part, each student was given a student workbook prior to viewing the filmstrip-tape presentation. Students were asked to explain their problems so that a consensus could be established to determine whether a problem was specific to an individual or was generalized to at least 25 percent to 30 percent of those using the materials. If the latter was true, students were asked to suggest an appropriate revision.

Main Activities:

Students listen to tapes and watch filmstrips. Textbook reading is always required prior to the viewing.

Activities in the workbook vary, but they include making an evaluation plan, developing a flow diagram of a task, analyzing a task, rating teacher performance, observing teaching technique, identifying types of learning and designing learning systems.

Posttests are included with every chapter in the textbook. The posttest may be used as a pretest, but it is important to recognize that the posttest reflects the way the authors have organized the material.

Provisions for Use:

Format: To be used as part of a course or workshop.
Personnel: When used to train future teachers, the product should be incorporated into a formal course where an instructor is available to guide and facilitate student learning.

Teachers or trainers could use the product independently. The authors feel that experience in teaching will provide a sufficient background and suitable frame of reference for understanding and applying the principles and techniques discussed.

Provisions for Use: (Continued)

The film-tape presentations were designed to enable students to practice skills introduced in the student workbook; they were not intended to replace a teacher. The authors might be considered as "guest lecturers" who provide the participants with somewhat different perspectives on learning design and who can lend some variety and novelty to a basic course. Suggested modes of presentation are offered in each unit. These may be mixed or individualized depending on the group's abilities and modes.

Product Components: Textbook (available from McGraw-Hill), 12 filmstrip-tape presentations, Student Workbook (used in conjunction with the presentations) and Teacher's Manual.

Time Span: The product could easily be integrated into a term's or semester's preservice course. There is no mention of time (either suggested or ideal) for an inservice. This would be left entirely to the discretion of the user group.

Conditions of Use:

The first five units were developed to teach how to analyze subject matter and evaluate learning systems; they should be studied in sequence. The last five units may be studied in the order that seems appropriate to the student and teacher.

Related Materials:

None

Ordering Information:

Write:
Marketing Division
Instructional Media Center
Michigan State University
East Lansing, Michigan 48824
(517) 353-3376

Cost:

Filmstrips and tapes	$199.50
Student Workbooks	2.95
Textbook	
Preview Package	15.95
Teacher's Manual	
Student Workbook	
Preview Filmstrip-Tape	

Title: Classroom and Instructional Management (CLAIM)

Descriptor: An eight-unit teacher training program concentrating on development of positive classroom environment through behavior analysis

Publication Date(s): 1975

Originator: Instructional Systems Program, Central Midwest Regional Educational Laboratory, Inc. (CEMREL)

Intended Users: Primarily for teachers and administrators of preschool and early elementary levels. With modifications, it also could be used with older elementary, junior high and high school levels.

Purpose: Goals: The program is designed to show teachers how they can reduce behavior problems in the classroom and make it a pleasant place in which to work.
Objectives: At the beginning of each unit in the Participant's Manual are objectives which the user should expect to master upon completion. The following is an example taken from Unit 2--"What Influences Behavior?" The objectives state that at the end of this unit a teacher will be able to:

1. Analyze specific behaviors and tell what events control or influence them
2. Recognize reinforcement and punishment procedures as they operate in classroom situations
3. Select a menu of potential reinforcers to strengthen behaviors, including social reinforcers, activity reinforcers, edible reinforcers and material reinforcers
4. Use several strategies to discover potential reinforcers for a class of children
5. Assess whether a potential reinforcer is effective with a particular child
6. Identify several methods of weakening undesirable behavior

Content: The program consists of eight units which cover the following topics:

- An introduction to behavior analysis
- What influences behavior
- Pinpointing behavior
- Planning progressions and measuring results

Content: (Continued)	• Social reinforcement • The token economy • Contingency contracts • Response weakening techniques • Peer tutoring and scheduling The emphasis in all units is on discovering new methods to approaching and solving problems.
Usefulness Related to CBE:	Each unit is prefaced with a set of objectives outlining competencies that teachers will have at the end of the unit. Teachers involved in this program will have a better understanding of how their behavior influences children.
History of Development:	Research conducted with children of severe learning and behavior problems from 1968 to 1973 provided the basis for material in this program. Over a six-year period the research was applied in about 15 field test sites in Missouri and Tennessee. More than 100 teachers and administrators have been through this training. An evaluation of 43 teachers in St. Louis County showed a significant impact on teacher behavior. In all cases there was a decrease in undesirable student behavior.
Main Activities:	In each of the units there are numerous paper and pencil exercises which provide immediate feedback on readers' comprehension. The units are read and exercises completed prior to group sessions. There are also practice exercises which users complete in a classroom situation. Four filmstrips are provided to enhance understanding of concepts and techniques in the program.
Provisions for Use:	Format: The course is self-instructional. Teachers may read units and do exercises individually, or they may work together in a group under the direction of a coordinator. Personnel: Groups of eight participants are suggested. While a coordinator is not required, a Coordinator's Manual is included which provides information on planning and organizing sessions. No training is needed for the coordinator, but that person should be willing to read the materials in advance. This person might be one of the teachers, the principal, a consultant, etc. Developers strongly recommend a coordinator during the first few sessions to provide encouragement for the group.

Provisions for Use: (Continued)

Product Components: A full set of materials for the training program includes:

- Coordinator's Manual
- Participant's Manual for each participant plus one for the coordinator
- Four filmstrips
- Four cassette tapes

Time Span: This is varied depending on participant interest and time available. Three plans are provided which show how the program can be scheduled with either 14, ten or six sessions. Developers recommend at least ten sessions, with individual sessions held no less than a week apart.

Conditions of Use:

It is not essential for either participant or coordinator to have previous knowledge of behavior analysis. There are several possibilities for moving through the program:

- Participants meet as a group upon completion of each unit, with or without a coordinator
- Instead of meetings, the coordinator meets occasionally with each participant during the course
- Without coordinator or meetings, teachers may have informal discussions among themselves

Related Materials:

None

Ordering Information:

Write: Walker Educational Book Corporation
720 Fifth Avenue
New York, New York 10019
(212) 265-3632

Cost: $180.00 includes the following:
Coordinator's Manual
Eight Participant's Manuals
Four filmstrips
Four cassette tapes

Each teacher needs a copy of the Participant's Manual.

Title: Mastery Teaching

Descriptor: An audiovisual-print program designed to equip teachers with skills and a plan for increasing the achievement of their students

Publication Date(s): 1975 (Revised Edition)

Originator: James R. Okey and Jerome L. Ciesta at the National Center for the Development of Training Materials in Teacher Education

Intended Users: Classroom teachers who wish to become proficient with a plan for "mastery teaching"

Purpose: Goals: There are six statements of purpose, one for each of the learning sections in the program. They are:

1. Present a five-point plan for improving pupil performance
2. Show how to select and sequence objectives for a unit
3. Prepare diagnostic items as well as test items for objectives
4. Identify tasks with which students are having difficulty
5. Determine which tasks have been failed, why students have been unsuccessful, and what strategy and materials to use in reteaching efforts
6. Analyze Mastery Teaching and measure its effectiveness

Objectives: There are three objectives written for each of the six sections. There are 18 enabling objectives for the above goals.

Content: The six sections are titled and include the following:

- A Plan for Mastery Teaching introduces the five-point plan for implementing a mastery learning program, based on Bloom's theory of mastery learning, i.e., most students can master the material in a course.
- Identifying and Sequencing Objectives provides information on where to locate objectives without writing them and also provides practice and instruction in creating sequencing arrangements for thinking skills.

Content: (Continued)

- Developing Evaluation Measures gives suggestions on preparing test items.
- Identifying Learning Difficulties describes and provides practice in methods of determining performance of students and their learning difficulties. It also presents methods of recording and scoring tests.
- Prescribing Instruction develops skills in determining why students fail and in planning strategies for corrective instruction.
- Measuring the Effects of Mastery Teaching describes methods and provides practice in analyzing the degree of effectiveness of the mastery teaching implementation.

Usefulness Related to CBE: The classroom teacher will be able to go far beyond knowing how to write a performance objective. There will be increased understanding through meaningful use relative to the daily teaching tasks.

History of Development: An earlier version of this program was developed by the same individuals with support from the National Center for the Improvement of Educational Systems. Revision, preparation and evaluation of this version was done with support from Teacher Corps, U.S. Office of Education. However, there is no documentation of how the evaluation was used or with whom it was conducted. A report on the effects of studying this module in terms of pupil learning is included in Report No. 2 of the National Center for the Development of Training Materials in Teacher Education.

Main Activities: Participants will be directed to use audiovisual materials to take self-tests and correct them, to complete practice exercises and to carry out a classroom project. Each of the sections is preceded by a statement of purpose and objectives.

Provisions for Use: Format: Mastery Teaching can be used by teachers working alone or in groups. However, group study is encouraged by the developers.

Personnel: There are no limitations set on the number of participants that can be accommodated by the audiovisual materials. However, each participant will need a copy of the Mastery Teaching manual.

Product Components: The complete set includes:

- Four audio cassettes
- Seven filmstrips
- One manual

Time Span: Four hours

Conditions of Use:	A pretest is provided to test the participants' skill in writing performance objectives (a prerequisite for this module).
Related Materials:	None
Ordering Information:	Center for Development in Teacher Education Indiana University 2805 East Tenth Street Bloomington, Indiana 47401 (812) 337-1013

Cost:	4 audio cassettes @ $6.50	$26.00
	7 filmstrips @ $8.50	59.50
	1 manual @ $5.00 (each participant needs a copy)	5.00
	Total	$90.50

Title: Toward Competency: A Guide for Individualized Instruction

Descriptor: A guide to assist special education teachers in developing programs of instruction for students unable to complete the regular school program

Publication Date(s): Teacher Edition, Revised 1977, 313 pp.

Originator: Special Education Section, Oregon Department of Education

Intended Users: Educators charged with providing learning programs for students of low academic potential

Purpose: Developers state that the "philosophy underlying this guide is that the teaching of special education students is most appropriately accomplished through a systematic approach to individualized instruction." *Goals*: The following, as stated by developers, is seen as the major goal of the guide: "In order to facilitate the development of graduation requirements and to apply them fairly to mentally retarded students, who may or may not be able to benefit from partial or full-time placement in the regular school program, the Special Education Division recommends that school districts use *Toward Competency* as a guide to develop course goals, additional competencies (when needed) and performance indicators for retarded students." *Objectives*: There are no objectives stated for this guide.

Content: There are two guides--the Teacher Edition and Student Edition. Both of these contain the following:

1. Six major curriculum areas--basic skills, personal and social awareness, living in the environment, career education, human ecology and leisure-time activities.
2. Sections--the subject matter is organized within each of the six curriculum areas into sections by topic. These curriculum sections comprise an educational framework designed to carry the instruction of the student from first grade through high school.

Content:
(Continued)

3. Goals and Subgoals--goals are stated in terms of general student expectancies and considered long-range guidelines; subgoals focus on the acquisition of intermediate skills and considered short-range goals.

In addition to the above, the Teachers Edition also contains Criterion Measurement Statements which specifies the performance requirements to be met by a student before a subgoal can be considered learned. A feature of the Student Guide is the grid for recording student achievement.

Usefulness Related to CBE:

The guide will assist teachers to conduct quality programs, provide accountability for what students are taught and maintain continuity among the special instructional programs in the state.

History of Development:

Development began in 1972 with a statewide evaluation of a guide used by Portland's Special Education Department. Results of the evaluation were used as a basis for writing a new guide. It was later field tested with 45 special education programs serving approximately 675 students. Other state agencies, professional groups and consumer organizations were asked to analyze the content of the guide. In addition, a questionnaire was sent to 300 special education teachers who had attended inservices on the guide and had either used or evaluated its content. Two followup institutes were held in order to evaluate results, refine content and add Criterion Measurement Statements.

Main Activities:

Teachers using this guide will be assisted in the following:

1. To preassess the performance and needs of individual students
2. To select curriculum goals/subgoals, from the guide's hierarchy of skills, which meet individual student needs
3. To establish criteria that measure individual student performance on selected subgoals
4. To plan instruction relative to individual criterion measures
5. To measure and record student performance relative to individual criterion measures

Provisions for Use:

Format: The two guides are self-instructional for either the teacher or student.
Personnel: Individual students and teachers will need a copy of the guide.
Product Components: Teacher Guide, Student Guide.
Time Span: The guides are designed to assist in a full year's curriculum planning.

Conditions of Use:	There are no apparent constraints on the use of this guide.
Related Materials:	None
Ordering Information:	Write: Dr. Steve Brennan Professor of Special Education Smith Memorial Center Portland State University Portland, Oregon 97207 Cost: Teacher Guide $6.00 Student Guide $4.00

Title: The Analysis of Behavior in Planning Instruction

Descriptor: A textbook in methods of designing and evaluating curriculum materials

Publication Date(s): 1976, 450 pp.

Originator: James G. Holland, Carol Solomon, Judith Doran and Daniel A. Frezzan, Learning Research and Development Center (LRDC), University of Pittsburgh

Intended Users: Primary intended users are advanced undergraduate and graduate students. Secondary users listed by the authors are "university faculty members, industrial-training-division staff members, writers on curriculum-development projects, school administrators, classroom teachers, and educational policymakers."

Purpose: The purpose of this text is to present principles of curriculum design in the context of learning principles derived from the science of behavior.
Goals: The authors state that their main goal is to "speak directly to the needs of people attempting to write educational or training materials and to those who are responsible for selecting educational materials."
Objectives: Four objectives for users of the text are stated by the authors. Students will learn to:

1. Describe the principles derived from the experimental analysis of behavior
2. State learning tasks in behavioral terms
3. Describe the extent to which instructional materials reflect the principles of the science
4. Design and produce curriculum materials that achieve a given learning task and are in accord with scientific principles

Content: The test is organized into six parts which contain a total of 31 units:

- Part I, "Behavior Theory and the Technology of Teaching," supplies an overview of behavior theory and gives examples of applications.
- Part II, "Behavior Theory in Practice," discusses the experimental analysis of behavior.

Content: (Continued)

- Part III is "Preparation for Teaching: Analysis of the To-Be-Learned Behavior."
- Part IV, "Teaching--Selecting and Writing Instructional Materials," provides instruction in evaluating lessons and instructional materials and in writing instructional materials.
- Part V, "The User of Tests," discusses how tests can help in the development of instructional materials.
- Part VI, "People to People," shows how behavior analysis can be used in open instructional settings.

Usefulness Related to CBE:

The skills of curriculum design that are taught in this textbook are applicable in a CBE context. This text would be especially appropriate for persons with a behavioristic orientation and philosophy.

History of Development:

The material in this text has undergone three cycles of test and revision. Ten students under the direction of the developer were the first test group. These students used the material in an intensive six-week institute. Student response to unit questions, student-produced curriculum materials and pretest-posttest results were used to make revisions.

The revised text was used with 16 students in a graduate course in curriculum design at the University of Pittsburgh. During this test, the same kind of data were gathered as during the first test. These data were used to revise the text further.

The second revision was used with 46 undergraduates at Emerson College in Boston. Data from this test were useful, the developers state, "in guiding the authors through an extensive revision to simplify the course and to eliminate troublesome areas."

The final revised version is this current text.

Main Activities:

Each part is divided into two or more units, and each unit generally contains:

- A statement of its content
- One or more learning objectives
- A set of instructions to the student about how to use the material in the unit in order to achieve the objective(s)
- A narrative section
- A set of references
- A set of questions designed to test the mastery of the unit's objectives

Main Activities: (Continued)

Students are normally instructed to read the objectives of a unit, to study the narrative material, to answer the questions, to check answers with suggested answers in the back of the text and to discuss their work with the instructor.

Three of the units are called project units, and these involve students in the development of teaching materials in their own subject areas. Work in these units is intended to be critiqued by the student's instructor or peers.

Provisions for Use:

Format: This text may be used as part of a college course, as a self-instructional tool or as a common text for a learning group without an instructor.
Personnel: This text is intended to be used by one person. In classroom or group situations, each participant will need a copy. An instructor utilizing this text should be thoroughly conversant with behaviorist theory and practice.
Product Components: A teacher's manual is available as a supplement to the basic text. It describes supplementary materials that may be used with the basic text.
Time Span: The authors state that "students who are already familiar with some aspect of the material covered in the course. . . are easily able to complete the course in brief, intensive sessions of six to eight weeks. . . . Students who are approaching this content for the first time will require a full semester."

Conditions of Use:

Use of this text by school personnel would probably entail a substantial amount of time--at the minimum, six to eight weeks.

Related Materials:

None

Ordering Information:

Write: Addison-Wesley Publishing Co.
Jacob Way
Reading, Massachusetts 01867

Cost:		
	Text	$12.95
	Teacher's Manual	$ 2.00

Title:	Preparing and Using Individualized Learning Packages for Ungraded, Continuous Progress Education
Descriptor:	A textbook for educators which presents the Individualized Learning Package approach to instructional management through curriculum design
Publication Date(s):	April 1972 (Second Printing)
Originator:	Philip G. Kapfer, University of Utah, Salt Lake City, Utah; Glen F. Ovard, Brigham Young University, Provo, Utah
Intended Users:	Anyone in education responsible for design and development of instructional materials for individualizing educational programs
Purpose:	The authors contend that this book is "different because it develops a means whereby materials for an ungraded, individualized curriculum can be created and used within the present structure of our school systems." Goals: The emphasis of instruction in this text is on explaining the purpose of Individualized Learning Packages and the relationship to individualizing. Objectives: The text is written as nine Individualized Learning Packages. Each of the packages is prefaced with two or three learning objectives.
Content:	The following are titles of the nine ILPs in the text: • A View of Individualized Instruction and Continuous Progress Education • What Will Be Learned? (Concept, Skill and Value Statements) • What Changes Will Occur? (Learning Objectives) • What Will Facilitate Those Changes? (Individualized Learning Materials and Activities) • What Can Evaluation Do To Help? (Pre-, Self- and Post-Assessment) • What Comes Next? (Quest) • Organizing for Alternative Instructional and Learning Approaches

Content: (Continued)

- New Teacher-Learner Roles in an Individualized Learning Package System
- Evaluating the Individualized Curriculum and the Continuous Progress System

Usefulness Related to CBE: A practical approach is provided in this text for clarifying the role of instruction in facilitating a completely successful CBE program.

History of Development: The authors have worked on a consultant basis with elementary and secondary teachers throughout the country. They indicate that this text is the result of much of this work. However, they do not provide specific information relative to its field testing.

Main Activities: Each of the nine ILPs includes learning activities. While these vary with each package, they are similar in sequence. First, the student must read for understanding: (1) the concept statement for the ILP, (2) the list of the subconcept statements for the ILP, (3) the list of the learning objectives for the ILP.

Next, the student takes a pretest which covers all the learning objectives. Then the student will complete one or more learning activities, usually a reading and a followup assignment for application. A posttest is given covering all the learning objectives for the ILP. Finally, suggestions are given for further reading and research.

Provisions for Use: Format: The text is self-instructional, but it is written to distinguish information designed specifically for the student from that for the teacher.
Personnel: If this text is used in a course or workshop, the instructor will need to have a clear understanding of the purpose and content of ILPs.
Product Components: Textbook only. Required reading assignments are included in the text. Any additional reading or viewing is the responsibility of the student.
Time Span: None is indicated. Used in a preservice course it would probably take a full quarter or most of a semester to complete.

Conditions of Use: There do not appear to be any constraints on the use of this text.

Related Materials:

Other books from the same publisher are:

- Behavioral Objectives in Curriculum Development--Selected Readings and Bibliography. By Miriam B. Kapfer.
- Curriculum Design in a Changing Society. Edited by Richard W. Burns and Gary D. Brooks.
- Handbook of Curriculum Design for Individualized Instruction--A Systems Approach. By Sidney J. Drumheller.
- Criterion-Referenced Measurement. Edited by W. James Popham.

Ordering Information:

Write: Educational Technology Publication
Englewood Cliffs
New Jersey 07632

Cost: $8.95

Each student needs one copy of the text.

Title: Discipline in the Classroom #15

Descriptor: A filmstrip-tape program for teachers which illustrates how to apply contingency management procedures to problems of classroom control

Publication Date(s): 1969

Originator: Eva L. Baker, Graduate School of Education, UCLA

Intended Users: Prospective as well as experienced teachers who are concerned with improving their teaching proficiency

Purpose: Goals: None stated

Objectives: The author states that at the conclusion of the program the learner will be able to:

1. List the six disciplinary rules given in the program
2. Identify whether teachers' responses to hypothetical disciplinary situations are consistent with those six rules
3. Given the description of a discipline problem, propose in writing a solution which is in accord with the principles stated in the program

Content: A six-rule strategy is identified in the discussion of classroom discipline:

1. Attend to observable behavior.
2. Define limits of acceptable behavior and communicate these to your class.
3. Do not reward undesired behavior.
4. Avoid punishing undesired behavior.
5. Provide an acceptable alternative student response for undesired behavior.
6. Reward appropriate behavior.

Usefulness Related to CBE: The program provides guidance for teachers in the unresearched area of appropriate strategies for different situations of disciplinary problems.

History of Development: This information is not complete. Field testing was done with 80 secondary education credential candidates at UCLA. The author states that "pre- and posttest gains on all three parts of the examination were significant beyond the .01 level."

Main Activities:

Learners view a filmstrip and make responses on an answer sheet. However, followup activities depend on individual group needs.

In an inservice, teachers and administrators may discuss the program in an after school session. For preservice courses the filmstrip may be used as an adjunct to courses in instruction.

Regardless of the user group, each participant is required to take a three-part examination which may be used as a pretest and/or a posttest. Each section is based on one of the measurable objectives for the program.

Provisions for Use:

Format: Best used to supplement a course or workshop focusing on the area of instruction.
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- An illustrated filmstrip, typically 30-40 frames
- Accompanying audiotape (reel-to-reel or cassette)
- Instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audiotape narration is approximately 30 minutes in length.

Conditions of Use:

The program advocates measurable skills which can be used to achieve identifiable competencies. Learners should be encouraged to bring in actual disciplinary problems from their classrooms. The group can use these to discuss methods of treatment applying rules discussed in the program.

Related Materials:

Other VIMCET products which treat the area of instruction:

- Individualizing Instruction #21 (See page 589)
- Knowledge of Results #12 (See page 609)
- Instructional Supervision: A Criterion-Referenced Strategy #17 (See page 605)

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Ordering Information: (Continued)

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired. Order by title and program number. Two-week preview available for any two filmstrip programs.

Title: Individualizing Instruction #21

Descriptor: A filmstrip-tape program for teachers which describes how to adapt classroom instruction to individual differences among learners

Publication Date(s): 1971

Originator: W. James Popham, Graduate School of Education, UCLA

Intended Users: Prospective as well as experienced teachers who are concerned with improving their teaching proficiency

Purpose:

Goals: None stated

Objectives: The author lists four specific objectives for the program. At the conclusion of the program the viewer will be able to:

1. Distinguish between descriptions of individualized instruction based primarily on:
   (a) individualized objectives or
   (b) individualized instructional procedures
2. List and briefly describe three school organizational patterns recommended for individualizing instruction
3. Supply three or more specific instructional procedures suggested for use in: (a) large group instruction, (b) small group instruction or (c) independent study
4. Generate a written description of an individualized instructional program which, in contrast to a description written prior to completing the program, will be judged as essentially more attentive to the individual learner

Content: There are two points of emphasis in the program. First, the distinction between individualizing objectives and individualizing instructional procedures is clarified. Second, school organization patterns are shown which facilitate these instructional procedures.

Usefulness Related to CBE: Teachers involved in this program should become more aware of attending to individual learning needs in planning for instruction.

History of Development:	The program was field tested with 25 graduate students at the UCLA Department of Education. The data of pre- and posttesting results follow: Part I: pretest 52 percent and posttest 92 percent; Part II: pretest 36 percent and posttest 88 percent; Part III: pretest 24 percent and posttest 72 percent. On Part IV there are no pretest results; however, 21 of the 25 posttest responses were judged superior.
Main Activities:	Learners view a filmstrip and respond on an answer sheet. However, followup activities depend on individual group needs. In an inservice, teachers and administrators may discuss the program in an after school session. For preservice courses the filmstrip may be used as an adjunct to courses in instruction. Regardless of the user group, each participant is required to take a four-part examination which may be used as a pretest and/or a posttest. Each section is based on one of the measurable objectives for the program.
Provisions for Use:	Format: Best used to supplement a course or workshop focusing on the area of instruction. Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination. Product Components: The program includes: ● An illustrated filmstrip, typically 30-40 frames ● Accompanying audiotape (reel-to-reel or cassette) ● Instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally. Time Span: The audiotape narration is approximately 30 minutes in length.
Conditions of Use:	The program advocates measurable skills which can be used to achieve identifiable competencies. It is suggested that Part IV of the examination be used for discussion. In this part learners are asked to design an instructional program which is more "attentive to individual learners."
Related Materials:	None

Ordering Information:	Write:	Vimcet Associates, Inc. P.O. Box 24714 Los Angeles, California 90024	
	Cost:	Filmstrip-tape program	$18.00
		Specify whether cassette or reel-to-reel tapes are desired. Order by title and program number. Two-week preview available for any two filmstrip programs.	

Title: Organizing Independent Learning: Primary Level (Minicourse 8)

Descriptor: A teacher training minicourse which illustrates organizational skills for individualizing instruction

Publication Date(s): 1971

Originator: Beatrice Ward and Marilyn Madsen, Far West Laboratory for Educational Research and Development (FWL)

Intended Users: Head Start and day care personnel as well as primary grades (K-3) teachers who want to adjust the learning environment to incorporate independent study

Purpose: Goals: The course goal for Minicourse 8 is: "to provide teachers with a set of skills that will establish for primary level children an understanding of how to work independently, including a knowledge of responsibilities without the presence of an authority figure."

Objectives: There are four instructional sequences for which objectives are written:

1. To develop teaching skills that establish the concept of working independently
2. To build teacher skills that lead to pupil skill in solving problems that occur during independent work periods
3. To develop teacher-learner expectations for delayed teacher response to pupil work
4. To combine independent work, problem solving and delayed response into a learning environment using independent activity and small group instruction

These objectives are made more specific with a list of teacher behaviors identified for each. The following is an example which addresses the first objective: "Discuss 'working alone' with pupils using a story or example."

Content: There are three major topics covered in the course: (1) introducing concepts of independent work, (2) helping students identify problems which might be encountered and (3) discussing delayed response.

Usefulness Related to CBE:

This course will provide teachers with a vehicle for implementing a competency based classroom instructional program regardless of subject area or grade level.

History of Development:

The minicourse went through a comprehensive field testing in schools in California (Fremont, Fresno and Mill Valley) and in Rockville, Maryland.

More than 200 teachers went through the course as part of an effort to determine its success. The authors state that the results showed the course to be effective.

"To determine whether they continued to use the skills, teachers were interviewed two years after completion of the main field test. One hundred percent of the teachers indicated they were still using some form of independent contracting." This use ranged from total conversion to the minicourse design to contracting in one or two subjects. The authors further state that "over ninety percent of the teachers stated that independent contracting was becoming a more important part of their instructional program every year."

Main Activities:

Each of the instructional sequences follows the same basic plan. On Day 1 the teacher reads about the skills to be introduced in the teacher's handbook and views the instructional film. The film shows demonstrations in use of skills and model lesson films which reinforce learning. On Day 2 the teacher microteaches using the skills with four-five students and then evaluates performance using a self-evaluation form in the teacher's handbook. On Day 3 the teacher reteaches with the entire class and observes the success of students' performance.

Feedback is provided through self-evaluation and peer interaction.

Provisions for Use:

Format: The course is self-instructional. If a group of teachers is working through the course, a coordinator is essential to complete some administrative tasks.
Personnel: The coordinator's responsibility is to make arrangements for scheduling of the program. A handbook is included which provides the information needed by this person. These are only suggestions and may be adapted to individual school situations.

Provisions for Use: (Continued)

Product Components: The following materials are included in the package:
- Four 16mm color films
- Teacher's Handbook which explains each of the teaching skills included in the course, lesson plan suggestions, self-evaluation forms, planning supplements for course activities and sample contracts
- Coordinator's Handbook

The following is needed in order to conduct sessions:
- 16mm sound projector
- A video tape system for every ten participants
- A 20-minute reel of videotape for each participant
- A room for microteaching

Time Span: Depending on the number of participants, the course requires five or six weeks. Activities are scheduled four or five days a week.

Conditions of Use:

There are nine microteaching sessions which take 60 minutes each. These sessions must be done during school hours since pupils from the classroom are involved. Substitute teachers may be used to provide this release time. One substitute can release five teachers per day.

Provisions should be made by the district for awarding salary and/or academic credit to participating teachers.

Related Materials:

None

Ordering Information:

Write: Macmillan Educational Services
c/o Association Films, Inc.
2221 South Olive Street
Los Angeles, California 90007
(415) 254-8015

Cost:		
	Purchase	$1,145.00
	Rental (4 weeks)	175.00
	Teacher's Handbook	3.80
	Coordinator's Handbook	3.80

Each participant needs a copy of the Teacher's Handbook.

Title: Organizing Independent Learning: Intermediate Level (Minicourse 15)

Descriptor: A teacher training course designed to help in applying research-based independent learning skills

Publication Date(s): 1973

Originator: Beatrice Ward and Marilyn Madsen, Far West Laboratory for Educational Research and Development (FWL)

Intended Users: Preservice and inservice teachers who are or will be working in grades 3-8 and want to create an open environment classroom

Purpose: Goals: The course goal for Minicourse 15 is: "to develop teacher skills in the introduction, implementation and utilization of independent learning activities for students at the intermediate level."

Objectives: There are five instructional sequences in the course. Objectives are written for each:

1. To develop teacher skill in assessing student knowledge of the meaning of independent learning and in assessing student levels of independence
2. To develop teacher skill in specifying learning objectives for independent study contracts
3. To build teacher skill in identifying resources, outlining learning steps and setting deadlines
4. To develop teacher skill in the use of reinforcers
5. To develop teacher skill in introducing independent learning activities into the classroom

These objectives are made more specific with a list of teacher behaviors identified for each. The following example addresses the first objective: "Assess student understanding of the concept of independent learning."

Content: The five instructional sequences are divided into three major categories:

1. Preparing to Introduce Independent Learning
2. Developing Independent Learning Contracts (includes an overview discussion)
3. Introducing Independent Learning

Usefulness Related to CBE: This course will provide teachers with a vehicle for implementing a competency based classroom instructional program regardless of subject area or grade level.

History of Development: The minicourse went through a comprehensive field testing in schools in California (Fremont, Fresno and Mill Valley) and in Rockville, Maryland.

More than 200 teachers went through the course as part of an effort to determine its success. The authors state that the results showed the course to be effective.

"To determine whether they continued to use the skills, teachers were interviewed two years after completion of the main field test. One hundred percent of the teachers indicated they were still using some form of independent contracting." This use ranged from total conversion to the minicourse design to contracting in one or two subjects. The authors further state that "over ninety percent of the teachers stated that independent contracting was becoming a more important part of their instructional program every year."

Main Activities: Each of the instructional sequences follows the same basic plan. Participants read the designated section in the Teacher's Handbook, then meet to view the instructional film. The next step is to plan a microteaching lesson to videotape and evaluate. They then reteach the lesson and evaluate again.

Feedback is provided through self-evaluation, student evaluation and peer interaction.

Provisions for Use: Format: The course is self-instructional. If a group of teachers is working through the course, a coordinator is essential to complete some administrative tasks.
Personnel: The coordinator's responsibility is to make arrangements for scheduling of the program. A handbook is included which provides the information needed by this person. These are only suggestions and may be adapted to individual school situations.
Product Components: The following materials are included in the package:

- Seven 16mm color films
- Teacher's Handbook which explains each of the teaching skills included in the course, lesson plan suggestions, self-evaluation forms, planning supplements for course activities and sample contracts

Provisions for Use: (Continued)

- Coordinator's Handbook

The following is needed in order to conduct sessions:

- 16mm sound projector
- A video tape system for every ten participants
- A 20-minute reel of videotape for each participant
- A room for microteaching

Time Span: Depending on the number of participants, the course requires five or six weeks. Activities are scheduled four or five days a week.

Conditions of Use:

There are nine microteaching sessions which take 60 minutes each. These sessions must be done during school hours since pupils from the classroom are involved. Substitute teachers may be used to provide this release time. One substitute can release five teachers per day.

Provisions should be made by the district for awarding salary and/or academic credit to participating teachers.

Related Materials:

None

Ordering Information:

Write: Macmillan Educational Services
c/o Association Films, Inc.
2221 South Olive Street
Los Angeles, California 90007
(415) 254-8015

Cost:		
	Purchase	$1,140.00
	Rental (5 weeks)	165.00
	Teacher's Handbook	3.90
	Coordinator's Handbook	3.90

Each participant needs a copy of the Teacher's Handbook.

Title: Educational Development, Dissemination and Evaluation (DD&E) Training Resources

Descriptor: A program for training professionals in educational development, dissemination and evaluation

Publication Date(s): No date given

Originator: Far West Laboratory for Educational Research and Development (FWL)

Intended Users: Professionals employed in educational R&D agencies or in DD&E positions within other educational agencies who need inservice or on-the-job training resources for themselves or for their subordinates. Graduate students in preservice programs, administrators, media specialists, curriculum consultants, linking agents, materials resource center staff or other educators who may need orientation to educational DD&E or specific skills in these areas.

Purpose: This product is an individualized, competency based professional program with a flexible curriculum in educational product and program planning, development, dissemination and evaluation.
Goals: The primary goal is to provide users with knowledge, skills and sensitivity specifically appropriate to effective performance at "entry-professional levels" in educational DD&E work settings.
Objectives: For the modules in each of the series there are specific performance outcomes stated.

Content: The main content areas include:
Series 1--Planning: An Overview Including Problem Definition and Specification of Outcomes; Consideration of Alternatives; Introduction to Development; Introduction to Evaluation; Introduction to Dissemination and Marketing
Series 2--Information/Data Collection and Organization: Orientation to Collecting and Organizing Information and Data; Data Management; the Retrieval of Information Using Bibliographic Sources; The Retrieval of Information Using Special Sources
Series 3--Communication Skills: Oral Communication; Written Instructional Materials; Technical Writing--Informal Documents; Technical Writing--Formal Documents

Content: (Continued)

Series 4--Development: Introduction to Development; Designing Educational Products; Product Engineering; Review, Tryout and Revision; Special Problems in Development
Series 5--Evaluation: Introduction to Evaluation; Measurement and Testing for Developers and Evaluators; Design of Evaluation Instruments; Planning and Implementing Evaluation; Evaluation Problems
Series 6--Dissemination and Marketing: Introduction to Dissemination and Marketing; Marketing Educational Products

Usefulness Related to CBE:

This series, or sections thereof, would be useful to districts or individuals planning to invest considerable time and resources in the development of an educational product.

History of Development:

Information is not available.

Main Activities:

The DD&E training resources are primarily self-instructional. Each series consists of the set of modules listed above. Each module contains several Episodes which contain the readings, examples and basic instructional content of the module. Specific Episode Objectives, displayed at the beginning of each episode, state in performance terms the outcomes the student should achieve. Exercises are provided to give the student an opportunity to apply concepts and skills. Exercises are followed by model responses and explanations in the Feedback section. Review Questions are provided to check understanding of concepts, principles and skills covered. A Summary after the last episode reviews key points and principles. Study Suggestions present new problems and questions and provide opportunity to apply, practice and discuss the module content. References are provided for further study of specific topics. Finally, separately bound End-of-Module tests permit assessment of mastery of the objectives for each module.

Provisions of Use:

Format: Primarily self-instructional but may be used as instructional resources in on-the-job, preservice or inservice training programs or as components of graduate training programs.
Personnel: Self-instructional, but training is enhanced significantly if an instructional resource manager familiar with the use of the DD&E materials is available.

Provisions of Use: (Continued)

Product Components: Twenty-three Instructional Modules, organized in six major series but usable separately or in a variety of other combinations than the six defined series. A User Guide to Training Resources describes the purpose, structure and objectives of each module. An Assessment System provides a manual and guide to the use of diagnostic, program planning, program progress assessment and exit competency certification resources.

Time Span: Individual modules require 6 to 24 hours of student work to complete, exclusive of special exercises or projects, with the majority of modules averaging from 14 to 20 hours. The entire set of six series provides the "core" for a year-long, intensive Master's-level program or its equivalent.

Conditions of Use:

The DD&E resource system was designed to fit a wide range of users and now is employed in a variety of settings ranging from use in higher education programs (community colleges, Bachelor's, Master's and doctoral programs in the behavioral sciences, educational technology, educational R&D and educational evaluation) to use in on-the-job training or upgrading in educational agencies.

Modules in the Planning, Information/Data Collection and Organization, Communications Skills, Evaluation or Dissemination and Marketing series may be of special interest to educational linking or change agents.

Although self-instructional, access to an instructional resources manager (IRM), who can aid the student in diagnosing training needs, planning and personalizing program of study, assessing progress, suggesting and reviewing specific applications projects, discussing problems and issues, etc., is highly recommended. The IRM role can be played by a work supervisor or a college instructor.

Related Materials:

- An Evaluation Guidebook--A Set of Practical Guidelines for the Educational Evaluator (See page 455)
- Evaluation for Program Improvement (See page 431)
- Evaluating a Curriculum Program: An Educator's Handbook (See page 429)

Ordering Information:	Prices of individual modules vary. For complete list of prices, write:

Far West Laboratory for Educational
Research and Development
Attention: Order Department
1855 Folsom
San Francisco, California 94103

This description was adapted from Educational Dissemination and Linking Agent Sourcebook.

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Title: Instructional Supervision: A Criterion-Referenced Strategy #17

Descriptor: A filmstrip-tape program for teachers which explains a consequence oriented approach to supervision

Publication Date(s): 1969

Originator: W. James Popham, Graduate School of Education, UCLA

Intended Users: Prospective as well as experienced teachers who are concerned wth improving their teaching proficiency

Purpose:

Goals: None stated

Objectives: The author states that at the conclusion of the program the learner should be able to:

1. Describe the two primary functions of an instructional supervisor who uses a criterion-referenced strategy
2. List four recommended activities to be used by supervisors in carrying out each of these functions
3. Distinguish among descriptions of supervisory actions and/or decisions which are or are not consistent with a criterion-referenced strategy

Content: The program identifies supervisors in schools and defines their roles. A criterion-referenced strategy for these supervisory roles is presented which consists of two functions: (1) help teachers select more defensible objectives and (2) help teachers achieve their objectives.

Usefulness Related to CBE: Teachers involved in this program should become more familiar with a "criterion-referenced strategy" where the focus is on the ends of instruction (consequences) rather than on the means or how it is conducted.

History of Development: The program was field tested with 150 participants at a supervision and curriculum development conference. Pre- and posttest results of the three-part examination follow: Part I, 5 percent correct on pretest, 92 percent correct on posttest; Part II, 4 percent correct on pretest, 88 percent correct on posttest; Part III, 52 percent correct on pretest, 84 percent correct on posttest.

Main Activities: Learners view a filmstrip and respond on an answer sheet. However, followup activities depend on individual group needs.

In an inservice, teachers and administrators may discuss the program in an after school session. For preservice courses, the filmstrip may be used as an adjunct to courses in instruction.

Regardless of the user group, each participant is required to take a three-part examination which may be used as a pretest and/or a posttest. Each section is based on one of the measurable objectives for the program.

Provisions for Use: Format: Best used to supplement a course or workshop focusing on the area of curriculum.

Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.

Product Components: The program includes:

- An illustrated filmstrip, typically 30-40 frames
- Accompanying audiotape (reel-to-reel or cassette)
- Instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audiotape narration is approximately 30 minutes in length.

Conditions of Use: The program advocates measurable skills which can be used to achieve identifiable competencies. Items on the examination should be used for discussion as followup activity.

Related Materials: Other VIMCET products which treat the area of instruction:

- Discipline in the Classroom #15 (See page 585)
- Individualizing Instruction #21 (See page 589)
- Knowledge of Results #12 (See page 609)

Ordering Information: Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Ordering Information: (Continued)	Cost:	Filmstrip-tape program	$18.00

Specify whether cassette or reel-to-reel tapes are desired. Order by title and program number. Two-week preview available for any two filmstrip programs.

Title: Knowledge of Results #12

Descriptor: A filmstrip-tape program for teachers which presents guidelines for providing students with immediate feedback regarding their performance

Publication Date(s): 1969

Originator: W. James Popham, Graduate School of Education, UCLA

Intended Users: Prospective as well as experienced teachers who are concerned with improving their teaching proficiency

Purpose: Goals: None stated

Objectives: According to the author, the principal objective of this program is that "when presented with fictitious descriptions of teachers in action the learner will be able to identify which of them is using the knowledge of results principle." He goes on to say that learners also should "be able to generate descriptions of diverse methods of providing knowledge of results."

Content: The program discusses four methods of providing immediate feedback: (1) a simple "right" or "wrong"; (2) a simple statement of the correct response; (3) "right" or "wrong" plus elaboration; (4) the correct response plus elaboration. Examples are given of classroom reinforcement and nonreinforcement.

Usefulness Related to CBE: Teachers involved in this program better understand and consequently organize methods they can use for providing adequate feedback during the instructional sequence.

History of Development: The program was field tested on two occasions with secondary education credential candidates at UCLA. Results of testing presented in the instructor's manual follow: Group I: pretest 42 percent correct and posttest 88 percent correct and Group II: pretest 44 percent correct and posttest 95 percent correct.

Main Activities:

Learners view a filmstrip and respond on an answer sheet. However, followup activities depend on individual group needs.

In an inservice, teachers and administrators may discuss the program in an after school session. For preservice courses, the filmstrip may be used as an adjunct to courses in instruction.

Regardless of the user group, each participant is required to take a ten-item examination which may be used as a pretest and/or a posttest. The examination is based on the measurable objectives for the program.

Provisions for Use:

Format: Best used to supplement a course or workshop focusing on the area of instruction.
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- An illustrated filmstrip, typically 30-40 frames
- Accompanying audiotape (reel-to-reel or cassette)
- Instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audiotape narration is approximately 30 minutes in length.

Conditions of Use:

The program advocates measurable skills which can be used to achieve identifiable competencies. Discussion of the examination items should be particularly helpful as followup.

Related Materials:

Other VIMCET products which treat the area of instruction:

- Discipline in the Classroom #15 (See page 585)
- Individualizing Instruction #21 (See page 589)
- Instructional Supervision: A Criterion-Referenced Strategy #17 (See page 605)

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Ordering Information: (Continued)

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired. Order by title and program number. Two-week preview available for any two filmstrip programs.

Title:	Instructional Tactics for Affective Objectives #24
Descriptor:	A filmstrip-tape program for teachers which describes three tactics--modeling, contiguity and reinforcement--for the promotion of affective objectives
Publication Date(s):	1971
Originator:	W. James Popham, Graduate School of Education, UCLA
Intended Users:	Prospective as well as experienced teachers who are concerned wth improving their teaching proficiency
Purpose:	Goals: None stated Objectives: The author states that at the close of the program the viewer will be able to: 1. Describe the general nature of each of the following instructional tactics: modeling, contiguity and reinforcement 2. Indicate which, if any, of these three instructional tactics are being employed when presented with fictitious descriptions of teachers attempting to accomplish affective objectives
Content:	The discussion of the instructional tactics includes several specific examples of affective objectives as well as activities in order to clarify the function of each tactic.
Usefulness Related to CBE:	Teachers involved in this program should begin to feel more comfortable with the difficult task of teaching for affective changes in learner behavior. The program advocates measurable skills which can be used to achieve identifiable competencies.
History of Development:	This program was field tested with 167 secondary education candidates at UCLA. A random selection of 100 examination papers showed the following results: Part I: pretest 32 percent and posttest 93 percent; Part II: pretest 61 percent and posttest 86 percent.

Main Activities:

Learners view a filmstrip. However, followup activities depend on individual group needs.

In an inservice, teachers and administrators may discuss the program in an after school session. For preservice courses, the filmstrip may be used as an adjunct to courses in instruction.

Regardless of the user group, each participant is required to take a two-part examination which may be used as a pretest and/or a posttest. Each section is based on one of the measurable objectives for the program.

Provisions for Use:

Format: Best used to supplement a course or workshop focusing on the area of instruction.
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- An illustrated filmstrip, typically 30-40 frames
- Accompanying audiotape (reel-to-reel or cassette)
- Instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audiotape narration is approximately 30 minutes in length.

Conditions of Use: None

Related Materials: None

Ordering Information:

Write:
Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired. Order by title and program number. Two-week preview available for any two filmstrip programs.

Title: Teaching Units and Lesson Plans #13

Descriptor: A filmstrip-tape program for teachers which provides an examination of key ingredients of effective written instructional plans

Publication Date(s): 1969

Originator: W. James Popham, Graduate School of Education, UCLA

Intended Users: Prospective as well as experienced teachers who are concerned with improving their teaching proficiency

Purpose: Goals: None stated

Objectives: It is stated that at the end of the program the learner will be able to:

1. Correctly use the terminology associated with lesson and unit planning by matching key terms with different paraphrase definitions of those terms
2. List the recommended elements which should be included in teaching units
3. List the recommended elements which should be included in lesson plans
4. Decide whether given operations should be carried out in developing: (a) lesson plans, (b) teaching units, (c) both or (d) neither

Content: The recommended elements in a teaching unit are: (1) precise instructional objectives, (2) pretest, (3) day-by-day activities, (4) criterion check, (5) posttest, (6) resources and (7) back-up lesson. The recommended elements discussed for a lesson plan are: (1) precise instructional objectives, (2) learner activities, (3) teacher activities, (4) time estimates and (5) assignments (if any).

Usefulness Related to CBE: Teachers involved in this program should begin to feel more comfortable in their approach to the instructional planning process beginning with specific instructional objectives. The measurable objectives advocated in the program can be used to achieve identifiable competencies.

History of Development: The program was tried with small groups as well as one large group with over 100 secondary teaching credential candidates at UCLA. Pre- and posttest results were significant, as shown by quantitative data in the instructor's manual.

Main Activities: Learners view a filmstrip and respond on an answer sheet. However, followup activities depend on individual group needs.

In an inservice, teachers and administrators may discuss the program in an after school session. For preservice courses, the filmstrip may be used as an adjunct to courses in curriculum.

Regardless of the user group, each participant is required to take the four-part examination which may be used as a pretest and/or a posttest. Each section is based on one of the four objectives of the program.

Provisions for Use: Format: Best used to supplement a course or workshop focusing on the area of curriculum.
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- An illustrated filmstrip, typically 30-40 frames
- Accompanying audiotape (reel-to-reel or cassette)
- Instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audiotape narration is approximately 30 minutes in length.

Conditions of Use: It is recommended that learners should prepare actual short lesson plans (which they intend to use) employing the elements discussed.

Related Materials: Other VIMCET programs treating this area of instruction:

- Writing Tests Which Measure Objectives #29 (See page 435)
- Analyzing Learning Outcomes #11 (See page 325)
- Instructional Tactics for Affective Objectives #24 (See page 613)

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program	$18.00

Specify whether cassette or reel-to-reel tapes are desired. Order by title and program number. Two-week preview available for any two filmstrip programs.

Title: Packages for Autonomous Learning (PAL) System

Descriptor: A self-instructional system for teachers who want to learn how to plan, write and evaluate learning activity packages (LAPs)

Publication Date(s): 1973 (Revised Edition)

Originator: Clover Park School District, Tacoma, Washington

Intended Users: Teachers who wish to learn skills in developing learning activity packages for classroom use

Purpose: Goals: The following are goals of the PAL System:

1. Using a systems approach, construct and evaluate one or more LAPs in the subject matter of your own choice
2. To acquaint practitioners with resources that are available to assist them in adding many more LAPs to the one or two that they have already painstakingly developed

Objectives: The developers write that after successful completion of the PAL system each teacher will be able to:

1. Perform a task analysis of an area of instruction which falls within the participant's teaching responsibility
2. Select those tasks which may be appropriately taught using one or more learning activity packages
3. Write measurable performance objectives for selected learning tasks; develop and diagram an instructional strategy aimed at one or more particular learning tasks
4. Write a criterion-referenced test for one or more performance objectives; sequence the products discussed above into a format which is referred to as a LAP (i.e., develop a LAP)
5. Evaluate a teacher-developed LAP and modify it based upon feedback; write a student performance contract
6. Use the following resources to assist in the development of LAPs beyond the workshop:
    - The Instructional Objectives Exchange
    - Computer Based Resource Units

Purpose:
(Continued)

- The State of Washington Learning Activity Package System
- The ERIC and CIJE Clearinghouse on Educational Media and Technology

Content:

There are nine learning activity packages in the PAL system. Developers contend that by learning through LAPs, teachers acquire first-hand knowledge of what a LAP is prior to developing their own LAPs. In preparing LAPs, learners become acquainted with the following:

- Instructional needs assessment
- Task analysis
- Performance objectives
- Objectives in the cognitive, affective and psychomotor domains
- Criterion-referenced tests
- Instructional strategies
- Evaluation of LAPs

Usefulness Related to CBE:

The system's usefulness is stated by the developers as follows: "A learning activity package, sometimes referred to as a LAP, module, UNIPAC, etc., is merely a systematically developed and sequenced booklet which guides the learner to the successful achievement of predetermined objectives in the most effective and efficient possible way." Teachers will be able to develop instructional materials for use in competency based teaching.

History of Development:

No information is available.

Main Activities:

The activities are sequenced so that learners:

1. Perform a task analysis in an instructional area of their choice
2. Write one or more performance objectives for the selected task(s)
3. Prepare a criterion-referenced test for each of the objectives; develop a matrix to show relationship of test items to performance objectives
4. Construct an instructional strategy for the LAP
5. Develop and put together components of a LAP
6. Evaluate and revise a LAP based upon feedback
7. Develop a student performance contract

Provisions for Use:

Format: The PAL system is designed for use in workshop sessions. There are two kinds of sessions: resource utilization sessions in which learners are acquainted with resources and laboratory sessions which allow for questions, practice exercises, posttests and problem discussion.

Provisions for Use: (Continued)

Personnel: A qualified course instructor or workshop director is required. This person sets up workshop sessions and provides materials and resources for participants.

Product Components:

- The PAL System prospectus describing activities and the system (22 pp.)
- LAP #1: covers instructional needs assessment, task analysis, tasks appropriately taught through LAPs, and entry behavior (27 pp.)
- LAP #2: contains an overview of performance objectives (48 pp.)
- LAP #3: provides an indepth study of objectives in the cognitive domain (32 pp.)
- LAP #4: provides an indepth study of objectives in the affective and psychomotor domains (24 pp.)
- LAP #5: covers writing criterion-referenced tests (27 pp.)
- LAP #6: covers instructional strategies (38 pp.)
- LAP #7: discusses LAP components and methods of sequencing (28 pp.)
- LAP #8: treats evaluation of a package (28 pp.)
- LAP #9: describes writing student performance contracts (41 pp.)
- The PAL System Illustrative Products Booklet: contains sample learning lattices, instructional strategies, packages, etc. (170 pp.)

There may be some special equipment needs in resource utilization sessions, e.g., microfiche reader/printer.

Time Span: Several months are required for completion of all sessions.

Conditions of Use:

There is no specialized prior knowledge necessary for participants to develop course products.

Related Materials:

There is a second portion of the PAL system:

- Planning, Writing and Evaluating Instructional Systems

Ordering Information:

Write: I.M. Warren
Clover Park School District No. 400
5214 Steelacoom Blvd. S.W.
Tacoma, Washington 98499

Cost: Information is not available.

Title: Individualizing Instruction: Materials and Classroom Procedures

Descriptor: A textbook which shows teachers teachniques of individualized instruction

Publication Date(s): 1972, 279 pp.

Originator: Helen Davis Dell, Science Research Associates (SRA)

Intended Users: Prospective and experienced classroom teachers who wish to improve their ability to provide individualized instruction

Purpose: The purpose of this text is to assist the users in developing their own materials and procedures for individualizing instruction. The author states that much existing material about individualized instruction "is limited to one or two procedures, the complete concept of individualization is seldom presented." The author's intent in this text is to help teachers "develop techniques furthering every aspect of individualization."

Goals: None stated

Objectives: Each chapter in the text contains a statement of the objectives intended for the reader. The following example is from the introductory chapter. "When you have completed this chapter you should be able to:

- List the five components of individualized instruction
- List the four purposes of an instructional objective
- List the roles a teacher must assume in an individualized classroom. State the difference between a classroom that allows for independent learning and one that allows for both independent and individualized learning
- Present an argument for an individualized classroom"

Content: The content of the text is arranged into nine chapters:

1. Introduction
2. Writing Instructional Objectives
3. Preparing Learning Guides
4. Evaluating Student Progress

Content: (Continued)

5. Classroom Organization
6. Teacher-Student Interaction in the Classroom
7. Recordkeeping
8. Developing a Student-Managed Classroom
9. Assessing the Extent of Individualization in a Classroom

Two appendices contain:

A. Posttests for material covered in each chapter
B. Notes to administrators and supervisors

Usefulness Related to CBE:

This text is a relatively inexpensive way to provide self-instructional experiences to classroom teachers to help them promote individualized instruction.

History of Development:

No information available

Main Activities:

Users of this text simply may read it, or they may study the objectives presented at the beginning of each chapter, take the pretest (also at the beginning of each chapter), complete several self-check items spread throughout each chapter and take the appropriate posttest for the chapter. Topics for Discussion, Discussion Questions and other practice exercises are included in each chapter. These require instructor or supervisor evaluation. Bibliographies at the end of each chapter indicate sources of further information.

Provisions for Use:

Format: The format of the text is mostly self-instructional, although certain parts of the text may be used for group discussion or require instructor or supervisor evaluation.
Personnel: Though not directly stated, it appears that the text is designed to accommodate one user. If several persons are using the text, it is probably wise to provide for an instructor.
Product Components: The text is designed for use by itself.
Time Span: No indication of the optimum time span for the use of the product is indicated.

Conditions of Use:

No restraints on the use of this text are indicated.

Related Materials:

None

Ordering Information:

Write: Science Research Associates, Inc.
Subsidiaries of IBM
College Division
1540 Page Mill Road
Palo Alto, California 94304
(415) 493-4700

Cost: $3.96 (Order No. 13-1490)

Title: Design and Development of Curricular Materials

Descriptor: A preservice self-instructional program in two volumes that teaches curriculum design procedures based on the structured-curriculum model

Publication Date(s): 1976

Originator: Doris T. Gow (ed.), Learning Research and Development Center, University of Pittsburgh

Intended Users: The program is designed for use in postbaccalaureate or upper division university level courses.

Purpose: Goals: Developers point to a need to relieve the shortage of personnel trained in innovative design procedures brought on by the movement toward individualized curricula.

Objectives: Each of the twelve self-instructional units includes terminal objectives, prerequisite objectives and a hierarchy of objectives.

Content: The components of a self-instructional unit are listed and defined as follows:

- Rationale--explains why the objectives in the unit are included in a curriculum design course
- Terminal Objectives--state in behavioral terms what the student should be able to do after instruction
- Prerequisite Objectives--usually stated in a previous unit, these are required for mastery of the unit
- Hierarchy of Objectives--charts the instructional sequence to show the relationship of objectives by level of difficulty
- Study Guides--one or more found in each unit; they list objectives for a section of the unit, list student tasks (learning experiences) and sources for these tasks coded to objectives (extensive readings)
- Overview--provides one or more of the following: content summary, information otherwise difficult to obtain and design points of view
- Bibliography--lists sources for the unit and further work as required by each student
- References--contain all sources used in the unit overview

Content: (Continued)	● Posttest--either an objective test (answer key provided) or a performance test (product to be evaluated) ● Pretest--given for diagnostic purposes
Usefulness Related to CBE:	Specialized procedures have been found useful in research and development centers to design and develop individualized curricula. This kind of curriculum is the best for fully effecting competency based education programs.
History of Development:	The model presented in this program was used to train curriculum doctoral students in a pilot project of the LRDC and the School of Education at the University of Pittsburgh. Developers go on to state that the training materials in these two volumes were "revised on the basis of this pilot test and of later testing with more than 200 students in the External Studies Program of the University of Pittsburgh." No quantitative data are available to reflect the outcomes of this field testing.
Main Activities:	In each unit there are one or more study guides which instruct the student in reading assignments along with followup questions or application exercises of what is read. Occasionally, the student is directed toward producing something, e.g., card file to be used on the job. Students will take posttests at the end of each unit.
Provisions for Use:	Format: The material in this program is self-instructional, but it is to be used in conjunction with a university-level course. Personnel: The number of participants is not limited; however, a course instructor is essential to clarify any points of confusion and assist students in moving through the text. Product Components: There are two volumes in this program: 1. Self-Instructional Text 2. Instructional Design Articles Time Span: There is no indication of time needed to complete the program. It is assumed that a minimum of one quarter or semester would be necessary.
Conditions of Use:	Students participating in this program should have a background in education, psychology and an academic discipline.
Related Materials:	None

Ordering Information:

Write: Center for International Studies
Publications Section
G-6 Mervis Hall
University of Pittsburgh
Pittsburgh, Pennsylvania 15260

Cost: $19.95 for two-volume set
$14.95 for Volume 1 only

Title: A Competency-Based Instructional Approach for Teachers in Secondary Schools in Low-Income Urban Areas

Descriptor: A dissertation providing secondary teachers in low-income urban areas with an instructional package to assist them in the construction of competency based instructional modules for students

Publication Date(s): September 1974, 176 pp.

Originator: Gwendolyn H. Austin, University of Massachusetts, dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Education

Intended Users: Secondary classroom teachers in low-income urban areas who want to learn how to construct competency based instructional modules for students

Purpose: The author states that "In spite of reform efforts during the past fifteen years, secondary schools in low-income urban areas are still in serious trouble. This dissertation attempts to interface theoretical and conceptual underpinnings of these reform movements: the curriculum reform movement; the Great Society Programs of the Kennedy and Johnson administrations; and the current Competency-Based Teacher Education (CBTE) movement. Using the CBTE approach, this dissertation focuses on dimensions with which CBTE did not deal--specifically, low-income populations and secondary schools."

Content: According to the author, "This dissertation develops an instructional package for secondary teachers from low-income urban areas to enable them to construct competency-based instructional modules for their students. Defined as a self-contained and independent unit of instruction, a module has a primary focus on clearly defined objectives and specified criteria by which the attainment of the objectives will be determined. The module contains varied learning activities to assist the learner in attaining the stated objectives. This dissertation is designed to train classroom teachers to construct instructional modules so as to actualize competency-based pupil education programs."

Usefulness Related to CBE:	The dissertation is useful to the secondary classroom teacher in low-income urban areas who needs to develop competency based instructional modules.
Main Activities:	The instructional package, Chapter V of the dissertation, presents information related to the various parts of a module and provides steps for constructing a module. The learner is instructed to read through the introductory materials and to work through the modules provided, according to the directions given for each. Finally, the learner is instructed to develop a module of his or her own. The Appendix contains a list of materials which supplement the package. The learner is instructed to perform tasks such as the selection of a title for a module, the preparation of rationales and objectives and the development of pre- and posttests.
Provisions for Use:	Format: Self-instructional Personnel: No specific requirements. A single individual may proceed through the material independently. Product Components: The instructional module contained within Chapter V of this dissertation. Time Span: No information available.
Conditions of Use:	No specific conditions of use are detailed.
Related Materials:	None
Ordering Information:	Write: Xerox University Microfilms P.O. Box 1764 Ann Arbor, Michigan 48106 Cost: Paperback Copy $15.00* Library Book 18.00* 35mm Microfilm 7.50*

*Prices for academic institutions. Prices are slightly higher for private, profit-making businesses.

INSTRUCTION: REFERENCES

Title: Basic Principles of Curriculum and Instruction

Descriptor: A book which provides explanatory information on the rationale for curriculum and instruction in an educational setting

Publication Date(s): 1975 (33rd Printing), 128 pp.

Originator: Ralph W. Tyler, Director Emeritus, Center for Advanced Study in the Behavioral Sciences, former Professor of Education and Dean, Division of Social Sciences, the University of Chicago

Intended Users: Because it was originally published as a syllabus for an education course, it could be assumed that the book is primarily for use in preservice courses.

Purpose: The author states that the "book outlines one way of viewing an instructional program as a functioning instrument of education."
The rationale for the book starts with four questions to be answered in curriculum development:

1. What educational purposes should the school seek to attain?
2. What educational experiences can be provided that are likely to attain these purposes?
3. How can these educational experiences be effectively organized?
4. How can we determine whether these purposes are being attained?

These questions are not answered in the book; suggested methods are provided instead.

Content: There are five chapters in the book. The first four treat the questions as shown above to develop a rationale for study. In the last chapter, discussion is given to staff involvement in curriculum building.

Usefulness Related to CBE: This treatise provides considerable information useful to introducing basic concepts and principles inherent to CBE.

Related Materials: None

Ordering Information:

Write:
The University of Chicago Press
5801 Ellis Avenue
Chicago, Illinois 60637
(312) 753-1234

Cost: $2.45

Title:	Guidelines for Developing a Competency-Based In-service Teacher Education Program (CBITE)
Descriptor:	A book of guidelines to assist school districts in planning a transition from traditional to competency based inservice
Publication Date(s):	August 1974, 64 pp. + appen.
Originator:	Gordon Lawrence and Charles Branch, Florida Educational Research and Development Program
Intended Users:	Anyone who is involved in attempts to convert a traditional inservice program to a competency based program
Purpose:	The authors state that the main purpose of the project was "to develop and field test procedures and training materials that the county school systems in Florida could use in developing their own programs of competency-based in-service education for teachers." The book reflects the experiences of this project.
Content:	Major sections of the book are: 1. A Perspective on the Competency Approach--defines competencies and explains how they are derived, their focus on teacher education programs, how they are assessed, characteristics and their adaptation to inservice teacher education 2. Changing Responsibilities in the In-service Program--describes changes involved in the transition including program elements, certificate extension units, program management and the roles of the supervisor/inservice director, the teacher, the school administrator, university/college personnel and State Department of Education 3. Practical Arguments for Teacher Management of CBITE--describes problems in management and functions of a peer panel 4. Guidelines for Developing a Competency-Based In-service Program--outlines in detail a four-phase development including organization, orientation, implementation and planning a full CBITE program 5. Concluding Remarks

Content: (Continued)	There are two appendices. One lists Florida's modules on generic teaching competencies, and the other provides an inventory of concepts about middle school teaching.
Usefulness Related to CBE:	The type of program described in this book allows for teacher's competencies to be demonstrated rather than inferred from records.
Related Materials:	● Patterns of Effective In-service Education, Gordon Lawrence, et al. (Available from source listed below)
Ordering Information:	Write: Panhandle Area Educational Cooperative P.O. Drawer 190 Chipley, Florida 32428 Cost: $2.50

Title: Competency Tests and Graduation Requirements

Descriptor: A monograph for administrators which describes background information and the current movement toward competency tests as graduation requirements

Publication Date(s): 1976, 69 pp. + appen.

Originator: James P. Clark, Research Associate, and Scott D. Thompson, Associate Secretary for Research, National Association of Secondary School Principals (NASSP)

Intended Users: School and district administrators

Purpose: The authors state that the purpose of this monograph "is to explore the use of a variety of specific competency tests that measure skill achievement required for high school graduation." This has become a growing concern as more high school graduates are found to be deficient in basic skills.

Content: A brief discussion is given to defining competency tests and their relative position at the state and district levels. Samples of competency tests in current use are presented in the areas of mathematics, reading, writing, democratic process, art, music and money management.

There are two appendices: one lists, by state, the schools using competency tests; the other, legislative and state board rulings concerning competency tests.

Usefulness Related to CBE: Anyone interested in current, specific information regarding the role of competency testing for graduation requirements would find this document useful.

Related Materials: None

Ordering Information: Write: The National Association of Secondary School Principals
1904 Association Drive
Reston, Virginia 22091

Cost: $3.00 (must be prepaid if order is fewer than four copies)

Title:	CAREER•SEX•RACE Analysis Kit
Descriptor:	A kit designed to assist educators, parents and others in identifying sex/race/career bias in curriculum materials
Publication Date(s):	1977, 20 pp.
Originator:	Gwyneth Britton, Gwyneth Britton and Associates, Inc. Corvallis, Oregon
Intended Users:	Educators, parents and others desiring a tool for documenting the presence or absence of sex/race/career bias in curriculum materials
Purpose:	According to the developer, "the purpose of this sex/race/career analysis kit is to provide educators, parents, and others with an appropriate research tool for objectively documenting the existence or absence of sex/race/career bias in reading, literature, and social science curriculum materials. In addition, the procedures described may be used to document the number of other characters, such as the aged, single parent families, the handicapped, and the image of farmers, etc. Some modification of this analysis procedure is necessary for use in other subjects."
Content:	The kit contains general procedures and criteria for analyzing each book, instructions for preparing a summary sheet and examples to aid in displaying the data. The kit provides forms for recording major character/career role assignment by sex and ethnic major characters/careers by sex/race. Summary forms are also provided for both, and a Sexism Racism Profile Sheet is included.
Usefulness Related to CBE:	The kit provides educators, parents and others with a means for reviewing CBE instructional materials for career, sex and race bias.
Related Materials:	• Sexism Racism Profile by publishers for some 49 titles (G. Britton Associates)
Ordering Information:	Write: Gwyneth Britton and Associates, Inc. 1054 N.W. Fillmore Corvallis, Oregon 97330 Cost: $5.00

Title: Guidelines for Establishing An Objective-Based Curriculum: Occasional Paper #8

Descriptor: A paper which outlines suggestions for the development of an objective-based instructional program

Publication Date(s): February 1973, 17 pp.

Originator: Les Brown, Institute for Educational Research

Purpose: According to the developer, "the central purpose of this paper is to provide suggestions for the development of an objective-based program."

Content: The author presents his viewpoints in three sections of this paper. The first, his rationale, is a consideration of the value of specifying objectives and the question of just how specific objectives should be. In the second section, Viewpoints, the author examines criticisms of objective-based programs. In the final section, Approaches, the various approaches to selecting objectives are reviewed and evaluated. An appendix contains a listing of objectives and test items.

Usefulness Related to CBE: The issues discussed in this paper should be of interest to educators who are designing a curriculum based on specific outcomes.

Related Materials: None

Ordering Information: Write: Institute for Educational Research
1400 West Maple Avenue
Downers Grove, Illinois 60515

Cost: $6.00

Title: Learning Activity Packages

Descriptor: A document which describes learning activity packages as one approach to individualized instruction

Publication Date(s): January 1972, 90 pp.

Originator: Benjamin F. Walker and Margery M. Bucholz, Indiana State University, Terre Haute, Indiana

Intended Users: Teachers interested in developing learner activity packages (LAPs) who seek examples of teacher-prepared rather than commercially prepared materials

Purpose: The purpose of this document is to provide both information about individualized learning activity packages and a bibliography of related materials.

Content: This document includes four learning activity packages developed by classroom teachers: "Sounds We Hear and the Sound We Don't Hear," "The World of the Middle Ages," "Filing Fun-Damentals" and "Tag Along With Textiles." Reports by a language arts consultant, an extended services librarian and a high school principal are included. Finally, a bibliography of books and periodicals relating to the development of individualized instructional materials is attached.

Usefulness Related to CBE: This document would be useful to teachers who are developing instructional materials which may be individually prescribed and for which specific competencies are stated.

Related Materials: None

Ordering Information: This document is available (Order No. ED 073 063) from:

ERIC Document and Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Cost: $ .83 (microfiche) $4.67 (hardcopy)
Plus Postage

Title: Instructional Design: A Plan for Unit and Course Development

Descriptor: A text introducing a systematic instructional design plan for unit and course development

Publication Date(s): 1977, Second Publication, 162 pp.

Originator: Jerrold E. Kemp, Instructional Development Services, San Jose State University

Intended Users: Principal users are school administrators interested in encouraging their faculties to explore new methods of planning and instruction. It can also be used by teachers and instructional developers in preparing new courses or in revising existing ones.

Purpose: The author states "the purpose of this book is to present a basic approach to systematic instructional planning that can be adapted for use on any educational or training level. It takes into consideration all major elements of the planning process, presenting the essential information about them in a straightforward, nontechnical manner."

Content: Following the presentation of an overview of the instructional design plan, the author considers each of the eight plan components in detail. The components tested deal with: goals, topics and general purposes, learner characteristics, learning objectives, subject content, preassessment, teaching/learning activities and resources, support services and evaluation. In the final section the author deals with some ideas which may improve the chance of success of the design plan and techniques for measuring plan outcomes. These include the mechanics of (1) planning, (2) personnel capabilities and working relationships and (3) efficiency, cost and effectiveness measures. The bibliography contains entries on instructional design systems, learning objectives, learning theory, individualized learning, instructional resources, evaluation, equipment and facilities and future planning and accountability.

Usefulness Related to CBE: The method provided may be useful to educators responsible for implementing the various aspects of a CBE program.

Related Materials:	Also available, although not included in this *Sourcebook*, is a detailed study guide and workbook and audio-cassette recordings to be used in conjunction with this text.
Ordering Information:	Write: Fearon Publishers 6 Davis Drive Belmont, California 94002
	Cost: $2.25

Title: Relevant Educational Applications of Computer Technology (REACT) Course II: Computer-Oriented Curriculum

Descriptor: A training course to introduce teachers and administrators to the potential applications of computer technology to five subject areas

Publication Date(s): 1971

Originator: Northwest Regional Educational Laboratory (NWREL), Portland, Oregon

Intended Users: Teachers and/or administrators interested in understanding computer applications to the curriculum areas of social studies, English, business education, sciences and mathematics

Purpose: The purpose of Course II is to provide teachers with complete and understandable materials which will assist them in integrating computers into the ongoing curriculum.
Goals: The units of the REACT course were designed to: (1) give teachers several examples of units that they might use in courses and (2) to stimulate thinking in the direction of possible ways in which the computer could be used to teach the curriculum.
Objectives: Instructional objectives are presented within each of the books dealing with the five specific curriculum areas.

Content: The course is composed of applications in each of the five subject areas; these can be used for a structured course or workshop, for individual self-study or as independent reference materials. Units within the five curriculum areas contain descriptions of the computer programs being used, rationale for the unit, methods for integrating the unit with ongoing curriculum, performance objectives and suggestions for sequencing class activities. The first five books are devoted to curriculum areas; the remaining three books present REACT computer program listings and application units, one book of applications for tests and one for test answers.

Usefulness Related to CBE: The course assists teachers interested in preparing specific curriculum units for students utilizing educational computer technology.

History of Development: The course was developed and field tested in conjunction with Course I--Computers in Education: A Survey.

Main Activities: The curriculum units within each subject area are based on a computer program which is to be run on a terminal. Posttests are provided for each unit, and bibliographies refer students to helpful supplementary resources.

Provisions for Use: Format: The course may be used in a university education curriculum, in an inservice class for educators or in an individual study program. These materials have been more successful when used as part of a formal course, rather than in self-instructional mode. Course I should be a prerequisite, or it could be taught simultaneously. Personnel: Wherever tests were conducted, it was found that the greatest need for assistance always arose during set-up: in orienting the coordinator, supplying materials and tests and establishing procedures. After set-up, any problems that arose could be handled by telephone.

Conditions of Use: The materials are designed to be used with a computer and computer terminals, but they also are being used without computer access. Therefore, they can be used in regular classroom situations.

Related Maerials:

- Relevant Educational Applications of Computer Technology (REACT) Course I (See page 707)

Ordering Information:

Write: Tecnica Education Corporation
1864 South State Street
Salt Lake City, Utah 84115

Cost: Set of 9 books $24.95

Title: Experience-Based Learning: How to Make the Community Your Classroom

Descriptor: A guidebook designed to assist educators in implementing an experience-based learning approach

Publication Date(s): July 1977, 246 pp.

Originator: Larry McClure, Sue Carol Cook and Virginia Thompson, Northwest Regional Educational Laboratory, Portland, Oregon

Intended Users: Teachers and administrators interested in implementing experience-based learning

Purpose: To provide educators with learning techniques which can be used to support students in important components of experience-based learning: student journals, community certification of survival skills, community explorations and student projects

Content: This book provides answers to the following six questions:

1. How is experience-based learning different?
2. How do you structure experience-based learning?
3. How can you link community resources with student projects?
4. How do you write student projects?
5. How do you locate resource people and include them in experience-based learning?
6. How do you manage the process?

The appendices contain brief descriptions of 25 student projects that worked, an annotated section with brief descriptions of relevant publications, and an alphabetical listing of selected available literature on experience-based learning and alternative education options.

Usefulness Related to CBE: This guidebook would be useful to teachers planning to expose their students to experience-based learning.

Related Materials: Supplementary materials which help school staff organize community-based education activities into systematic learning experiences for students include:

- Student Guide to Writing a Journal, 16 pp., $1.50 (postage included)
- Student Competencies Guide: Survival Skills for a Changing World, 44 pp., $1.95 (postage included)
- Student Record of Community Exploration, 24 pp., $1.50 (postage included)
- The Community Resource Person's Guide for Experience-Based Learning, 24 pp., $.95 (postage included)

Materials available from address below.

Ordering Information: Write:

Office of Marketing
Northwest Regional Educational Laboratory
710 S.W. Second Avenue
Portland, Oregon 97204
(503) 248-6950

Cost: $9.45 (postage included)

Title: Preparing and Using Individualized Learning Packages for Ungraded Continuous Progress Education

Descriptor: A text designed to assist in the development and use of Individualized Learning Packages (ILPs)

Publication Date(s): 1971; Second Printing, April 1972, 264 pp.

Originator: Philip G. Kapfer and Glen F. Ovard

Intended Users: Educators involved in the development of individualized instructional materials and learning strategies

Purpose: The purpose of this book is to present the Individualized Learning Package (ILP) approach to instructional management through curriculum design. The book itself is written in Individualized Learning Packages.

Content: The first ILP provides a view of individualized instruction and continuous progress education. The ILPs which follow deal with the curricular components (5 ILPs), organizing the components (2 ILPs) and evaluation for decision and action (1 ILP).

Basic ingredients for building ILPs include:
1. Concept, skill or value statements
2. Specific learning objectives
3. Alternative learning activities--including media and methods of all types--selected according to the content and strategy of instruction and learning
4. Assessment, evaluation or testing--including pre-, self- and postassessment methods
5. Quest in breadth and in depth

Usefulness Related to CBE: Provides educators with ILP approach to the creation of instructional materials. Approach could be of use to teachers implementing a CBE curriculum.

Related Materials: None

Ordering Information: Write: Educational Technology Publications
Englewood Cliffs, New Jersey 07632

Cost: $12.95

Title:	Manual on Testing
Descriptor:	A manual for teachers and educators desiring information about tests, testing and the use of test results
Publication Date(s):	1977, 27 pp.
Originator:	Northwest Evaluation Association (NWEA)
Intended Users:	Teachers and administrators seeking practical information about the utilization of measurement data
Purpose:	"The purpose of this manual is to help teachers and administrators understand what they must do if they are to have confidence in the results of tests they use. It is intended to provide them with practical information about the nature of test results (educational measurement data) including how to collect, interpret and use such information."
Content:	Topics covered in this manual include the use of test results, the relation of tests to curriculum, performance referencing, measurement in general, measuring with tests, procedures for collecting accurate test data, test scores and scoring, and error in the score. In addition, a bibliography of measurement-related materials is provided for the reader seeking additional or an indepth discussion of the topics covered.
Usefulness Related to CBE:	May be used by those implementing a CBE program to assist in selection and administration of tests and in the use of resulting data.
Related Materials:	• The Northwest Evaluation Association Item Bank Collection (See page 383)
Ordering Information:	Write: Dr. Fred Forster, Executive Secretary Northwest Evaluation Association 631 N.E. Clackamas Portland, Oregon 97208 (503) 234-3392 Cost: $1.50

Title:	CBE In-Service Training Workshop Materials: Modules #1-5
Descriptor:	A set of five modules designed to familiarize users with the elements of competency based instruction
Publication Date(s):	June 1976, Third Revised Edition
Originator:	Rande, Ltd., Grosse Pointe Woods, Michigan
Intended Users:	Teachers and administrators involved in activities related to the implementation of a competency based instructional program
Purpose:	The purpose of these modules is to provide the user with an understanding of five elements important to competency based education. These elements are: (1) program goals or competencies, (2) performance objectives, (3) objective-referenced tests, (4) the selection of learning activities and (5) followup and evaluation.
Content:	Each of the five modules addresses one aspect of competency based education. The format for each module is the same: introduction of performance objectives; background information, an exemption test and a prerequisite skills test; a series of learning experiences; an exit test to measure competency. This format is followed for each of the five topics addressed.
Usefulness Related to CBE:	Upon completion of these five modules, the users should be prepared to utilize CBE concepts in the way in which they were learned.
Related Materials:	Six slide-tape presentations, transparencies and an instructor's guide are available from the publisher to support these modules.
Ordering Information:	Write: Rande, Ltd. 19944 Doyle Place Grosse Pointe Woods, Michigan 48236 Cost: $16.65 per set 3.65 Teacher's Guide

Title: Professional Vocational Teacher Education Curricula

Descriptor: 100 performance-based vocational teacher education modules and related supportive materials

Publication Date(s): January 1977 through June 1978

Originator: The Center for Vocational Education of the Ohio State University. Developed and tested pursuant to a contract with the National Institute of Education (NIE)

Intended Users: Educators of teachers, cooperating teachers, postsecondary and secondary staff development personnel and state department personnel involved in design and implementation of performance-based vocational teacher education (PBVTE) curricula

Purpose: These materials and supporting guides were designed to assist in the implementation of performance-based vocational teacher education. The 100 PBVTE learning packages focus on specific professional competencies of vocational teachers. Each module is based on one or more performance elements shown to be important to successful vocational teaching. The Student Guide, the Resource Person Guide and the Guide to Implementation of Performance-Based Teacher Education are designed to assist those who use the modules.

Content: The performance-based curricular materials for vocational teacher education are organized in modular form for preservice and inservice use in all vocational service areas. "This series of 100 PBVTE learning packages focuses upon specific professional competencies of vocational teachers. Each module provides learning experiences that integrate theory and application; each culminates with criterion-referenced assessment of the teacher's performance of the specified competency. Because of their size and flexibility, the modules lend themselvs to the selection of materials and learning experiences which are most suited to individual students' needs and interests."

"The modules are based on Center research that indicated the professional performance requirements

Content: (Continued)

(competencies) important to successful vocational teaching. This research verified 384 performance elements as being needed by vocational teachers. These elements, grouped into ten categories, provided the research base for module development." Those categories and the number of modules in each are:

Categories	Number of Modules
1. Program Planning, Development and Evaluation	11
2. Instructional Planning	6
3. Instructional Execution	29
4. Instructional Evaluation	6
5. Instructional Management	9
6. Guidance	5
7. School-Community Relations	10
8. Student Vocational Organizations	6
9. Professional Role and Development	8
10. Coordination of Cooperative Education	10

Usefulness Related to CBE:

Teachers trained in programs utilizing these materials will have experienced an instructional model whose major concepts and procedures are directly applicable and should assist them in implementing a competency-based curricula. The materials appear to have broader application than just the vocational education arena.

History of Development:

The PBVTE curricula has resulted from research and development effort by the Ohio State University's Center for Professional Development in Vocational Education. Development of the first version of the modules was a cooperative effort involving faculty at the University of Missouri-Columbia, Oregon State University, the Oregon and Missouri State Departments of Vocational Education and the Center for Vocational Education. Preliminary testing was conducted at the University of Missouri-Columbia, Oregon State University, Corvallis, and Temple University, Philadelphia. Advanced testing occurred at 18 institutions of higher education throughout the nation. Results of testing are not published with materials.

Main Activities:

Each module is an instructional package designed to cover one or more closely related teaching competencies. The package includes information activities and feedback devices to help the user acquire each competency.

Main Activities: (Continued)

The module format is standardized into four components. A description of each component in the order of their occurrence in the module follows:

About This Module: This section provides the following information: (1) a list of the objectives, both enabling and terminal, for the module; (2) the prerequisite skill(s) needed in order to complete the module; (3) a listing of all outside resources, both required and optional, which supplement those contained within the modules; (4) the number(s) of the performance elements (from the research base) whch form the basis for the module.

Introduction: The introduction provides the frame of reference for the entire module, i.e., relationship to other modules and the teacher education program, definition of terms unique to the module and the importance of the competency to be developed.

Learning Experiences: Each learning experience begins with a one-page overview that includes an enabling objective, brief statements of the major learning activities involved and a description of the type of feedback provided. The learning experiences include directions for completing the learning activities (reading information sheets, role-playing, planning, reacting to case studies, videotaping performance for critiquing by peers, observing skilled teachers, etc.) and directions for the feedback procedures and instruments. In most modules the first one or two learning experiences provide background knowledge about the teaching competency; the learner is then given an opportunity to practice or apply the competency in simulated situations. The last learning experience always requires performing the competency described in the terminal objective in an actual school setting for final assessment.

About Using the Center's PBVTE Modules: This section is designed to assist the person who is using one of the Center's modules for the first time. The organization of the module format is explained, procedures to follow in using a module are described and module terminology is defined.

Provisions for Use:

Format: See Main Activities
Personnel: The individualized instructional design of the module learning experiences allows for either individual or group instruction.

Provisions for Use: (Continued)	Product Components: 100 performance-based vocational teacher education modules plus A Student Guide to Using Performance-Based Teacher Education Materials, A Resource Person's Guide to Using Performance-Based Teacher Education Materials, a Guide to the Implementation of Performance-Based Teacher Education and a paper entitled Performance-Based Teacher Education: The State of the Art, General Education and Vocational Education Time Span: No indication of the optimum time span for the use of the product is indicated.
Conditions of Use:	The module design requires demonstration of ability in an actual school setting as evidence that the competencies have been achieved.
Related Materials:	None
Ordering Information:	Write: AAVLIM 120 Engineering Center Athens, Georgia 30602 Cost: Cost per module ranges from \$1.30 to \$4.20 Cost per guide ranges from \$.70 to \$4.80 Specific module and guide prices are available from the distributor.

Title: Keys to Community Involvement

Descriptor: A series of 15 practical, easy-to-read guides to improve and promote citizen participation in decision making

Publication Date(s): January 1978

Originator: Rural Education Program, Northwest Regional Educational Laboratory (NWREL)

Intended Users: Members of a citizens group, chairpersons and administrators

Purpose: The booklets are designed to help the users strengthen their skills in group processes, work cooperatively with others and successfully plan and carry out new projects.

Content: The series includes the following booklets:

1. Community Groups: Keeping Them Alive and Well
2. Group Decision Making: Styles and Suggestions
3. Problem Solving: A Five-Step Model
4. Planning for Change: Three Critical Elements
5. Personal & Professional Development: An Individualized Approach
6. Governing Boards & Community Councils: Building Successful Partnerships
7. Innovative Projects: Making Them Standard Practice
8. Successful Projects: Examining the Research
9. Effective Groups: Guidelines for Participants
10. Group Progress: Recognizing and Removing Barriers
11. Measuring and Improving Group Effectiveness
12. Finding the "Right" Information: A Search Strategy
13. Community Surveys: Grassroots Approaches
14. Using Consultants: Getting What You Want
15. Group Leadership: Understanding, Guiding and Sharing

Usefulness Related to CBE: This series is packed with specific suggestions dealing with how to establish and maintain active citizen involvement. It is written in simple, easy-to-understand language so it can successfully be used by people unfamiliar with the jargon of educators.

History of Development:	The booklets are adapted from a comprehensive set of materials and training activities developed and field tested by NWREL over the past years in dozens of locations throughout the western United States.
Main Activities:	Each booklet is filled with suggestions, checklists, guidelines and sample instruments related to the topic reflected in the title.
Provisions for Use:	Format: Fifteen individual booklets of 12-30 pages. Each booklet is complete by itself and contains cross-references on the other booklets that have supplementary information. Personnel: The booklets are intended to be read by individuals; the guidelines, suggestions or instruments should be used by the entire group. Booklets could form the basis of a 12-15 week inservice for groups that wanted to take some time to examine and improve their functioning. Product Components: Information sharing, guidelines, checklists and sample instruments Time Span: Each booklet can be read in approximately 15 minutes.
Conditions for Use:	The booklets cluster around four general topics: Cluster #1 Group Process--Particularly useful for the group convener and group participants Group Decision Making: Styles and Suggestions Problem Solving: A Five-Step Model Effective Groups: Guidelines for Participants Group Progress: Recognizing and Removing Barriers Measuring and Improving Group Effectiveness Group Leadership: Understanding, Guiding and Sharing Personal & Professional Development: An Individualized Approach Cluster #2 Planning for Change/Conducting Successful Projects--Particularly useful for the group convener and those persons who have responsibility for authorizing projects Planning for Change: Three Critical Elements Innovative Projects: Making Them Standard Practice Successful Projects: Examining the Research Cluster #3 Working With Community Groups--Particularly useful for the group convener and others who have responsibility for chairing, facilitating, organizing or conducting group work

Conditions for Use: (Continued)

Community Groups: Keeping Them Alive and Well
Governing Boards and Community Councils: Building Successful Partnerships

Cluster #4 Gathering Information--particularly useful for the group convener and group participants

Finding the "Right" Information: A Search Strategy
Community Surveys: Grassroots Approaches
Using Consultants: Getting What You Want

No specially trained individuals are required for an individual or group to use the booklets; a group may find that a supplementary workshop or training session would be beneficial in increasing their understanding and skill in the topics discussed in the booklets.

Related Materials:

The booklet series is a synthesis of a comprehensive set of materials developed to supplement training in the School-Community Process, formerly called the Rural Futures Development (RFD) Strategy. The product titles are:

- The RFD Manual for School-Community Process Facilitators
- The RFD Manual Resources
- The RFD Training Guide and Sample Training Activities
- The RFD Notebook for School-Community Groups
- The RFD Guide for Schools
- The RFD Guide for School Boards
- The RFD Support Agency Guide

Ordering Information:

Write: National School Public Relations Association
Dept. 78-45
1801 North Moore Street
Arlington, Virginia 22209

Cost:		
	Full set of 15 guides	$24.00
	Individual guidebooks	2.00/each

Title:	Toward Individualized Learning: A Developer's Guide to Self-Instruction
Descriptor:	A text presenting a detailed process for the development of a learning package
Publication Date(s):	1975, 393 pp.
Originator:	Rita B. Johnson and Stuart R. Johnson, University of North Carolina
Intended Users:	Classroom teachers and other educators engaged in the development of individualized curriculum materials
Purpose:	To provide readers with a defined process for developing and refining portable units of instruction and to assist them in carrying out that process
Content:	This book is comprised of a series of self-instructional units designed to help users develop learning packages. Part I teaches the user how to produce simple, short self-instructional units which can be tried out and revised. Part II helps beginners improve their initial production, including the ends, means and revisions of instruction. In Part III users are given tips in employing leadership skill, including self-management procedures, tutoring skills and small-group conferencing techniques to promote effective use of packages. Part IV encourages readers to share the materials they've developed and provides suggestions for storing, duplicating and distributing learning packages. A workbook is provided to accompany Chapters 1 and 2 of this text.
Usefulness Related to CBE:	This text provides the user with a process which may be helpful in the construction of CBE learning modules.
Related Materials:	None
Ordering Information:	Write: Addison-Wesley Publishing Company Reading, Massachusetts 01867 (617) 944-3700 Cost: $9.95

Title: Test Standards Workshop Guide

Descriptor: A guide for teachers and educators who want information about tests and testing

Publication Date(s): Available March 1978

Originator: Northwest Evaluation Association (NWEA)

Intended Users: Evaluation specialists, test writers, planners and teachers

Purpose/ Content: The guide contains five separate and complete learning packages in a single bound volume. It includes the packages described below.

Write Test Items for Content Reference Tests

This learning package deals with item writing procedures. It treats the objectives individually, listing each with specific assignments and activities and appropriate evaluation. The learning package could be used either in a workshop or for individual study; it is fairly self-explanatory and does not require a trainer. The package includes the materials needed for the exercises and reading assignments. The exercises give users a chance to apply the concepts learned.

Editing and Classifying Existing Test Items

This package addresses the problems of identifying flaws in test items and correctly classifying the items. As in the previous learning package, the objectives are treated individually. Reading is the primary kind of activity, and exercises give users an opportunity to apply the concepts discussed in the reading. The package is appropriate for either individual study or a workshop setting; small group work is frequently suggested as a followup to the reading.

Field Testing Test Items

This learning package was developed to help users in planning their own field test situations. Specific activities to aid the user in planning and

Purpose/ Content: (Continued) appropriate evaluation measures are included. The materials may be used for individual study; however, followup activity suggests small group work. There is one reading assignment, and the group work gives users an opportunity to apply the concepts discussed in the reading.

Test Organization and Layout

This learning package is designed to provide guidelines for test construction and format. As in the previous packages, the stated objectives are treated individually, and specific assignments and activities and appropriate evaluation measures are included. The learning package provides the required reading selection as well as a bibliography related to test construction. Additional materials are available from the resource persons listed in the package. The package is best suited to a workshop setting; although the learning package is self-explanatory, there is mention of a trainer who should supply commercially offered tests and test items with which groups will work. No special training is needed by this person.

Describe a Total Learning Management Program

This learning package describes the functions of a learning manager and the components of a total learning management system. It includes the materials needed for reading assignments and exercises as well as a list of resource persons. The package is sufficiently self-explanatory to allow individual study, but it may be used as a workshop or course, since small group work is suggested for followup activity.

Usefulness Related to CBE: This resource contains learning systems of value to any school district wishing to improve and upgrade standards for the construction of measurement instruments and the development of tests and test items.

History of Development: The Northwest Evaluation Association became a formal organization in 1973. This guide encompasses five of the learning packages/workshops developed by NWEA.

Conditions of Use: Most of the learning packages require the user to have some experience in the writing of course goals and behavioral objectives and/or test construction and writing test items.

Related Materials:

- Manual on Testing (See page 653)

Ordering Information:

Write: Dr. Fred Forster, Executive Secretary
Northwest Evaluation Association
Portland Public Schools
631 N.E. Clackamas Street
Portland, Oregon 97208

Cost: $16.00

INDICES

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Title Index

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OUTCOMES

MEASURES

INSTRUCTION

MANAGEMENT

INSTRUCTIONAL MANAGEMENT SYSTEMS

An efficient, reliable instructional management and record-keeping system is essential to CBE program operation. Data relative to each student's progress toward or attainment of program outcomes is required. An efficient system records and maintains a maximally manageable amount of data in a form that is accessible and easily interpreted. Such a system facilitates program planning, instructional management and school-community cooperation since it permits:

1. Appropriate placement of students in courses and programs
2. Remediation and individualization of instruction for students
3. Program revisions based on identified weaknesses
4. Comparisons among instructional programs or instructional sequences
5. Demonstrating individual student, class, school or district accomplishment

Data-Gathering Tasks

In a comprehensive CBE program, vast amounts of student performance data could potentially be accumulated. In order to avoid overburdening the program with record-keeping tasks, not all data need be reported. For example, data that the classroom teacher uses to make remediation or supplementary instruction decisions need not be transmitted beyond the classroom record-keeping system. In most cases, the reported scores need only be unit test scores (coded or referenced to unit outcomes). Classroom teachers should not be burdened with too-frequent data recording and reporting, and only data critical for decision-making and progress-reporting purposes are necessary.

Record Sheets and Reports

Record-keeping devices may vary widely in format and content. Individual class record sheets for any tests minimally should allow for recording each student's performance in relation to desired level of performance on each outcome. Record sheets that show combined class or school data should array those data in a manner that is easily interpretable by a variety of interested audiences. Reports that are issued from data should also be easily interpretable and should include directions or guidelines for interpreting the data in terms of program outcome attainment. For maximum utility, reports designed to facilitate program planning and instructional management decisions should be issued at predetermined intervals during the school year as well as at the end of the year. Reports designed to credit educational accomplishments may be issued as appropriate.

Analysis of Records and Reports

Data regarding student performance on outcomes are indispensable tools in informed decision making. Analysis of individual student performances allows accurate program placement, individualization or remediation, and meaningful progress reporting (e.g., "John has mastered multiplication but is not yet able to solve word problems using that skill," rather than "John needs some help in math"). Analysis of class or school data permits well-informed decisions relative to instructional program selection and revision. For example, if a disproportionate number of students fail to attain a specific outcome, a purposeful investigation can be undertaken of the outcome itself, the instructional sequence or procedures, and the test item that measures that outcome. Subsequently, revision in the weak area can be effected. Class or school performance data also can be used to determine the effectiveness of completing instructional sequences or programs, through a check of the number of students achieving the outcome and the amount of instructional time required.

Performance data are useful in community-school cooperation. Letters, briefs, reports or meetings explaining educational goals and progress toward achievement of those goals can be effective in gaining the understanding and support of the community.

In this section of the CBE Sourcebook, resources and materials are described which will aid in the selection and development of instructional MANAGEMENT and record-keeping systems:

Available materials--available manual or computer-assisted management systems that are either program specific or program general

Selection Procedures--products which assist the user in making informed selections from available management systems

Developmental Instructions--products that assist the user in designing and revising manual or computer-assisted management systems

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References--references which provide information related to reporting pupil progress and assessing instructional management and record-keeping system effectiveness

MANAGEMENT: AVAILABLE MATERIALS

Title: Evaluating Instructional Systems: PLAN, IGE, IPI (EPIE Educational Product Report: An In-Depth Report #58)

Descriptor: An assessment of three comparable, well-developed systems that stress individualized instruction

Publication Date(s): 1974, 64 pp.

Originator: Educational Products Information Exchange (EPIE) Institute

Intended Users: This report is directed to school personnel who wish to consider the use of individualized instruction systems for their school. It also can be used to provide a comprehensive overview of the three most widely publicized programs.

Purpose/Content: This EPIE study was undertaken because of increased interest in individualized instruction and because individualized instructional systems are now available. The purpose of the report is to discuss three representative individualized instruction systems. The authors characterize this report as a limited "first-cut assessment," which focuses upon:

- Principles characteristic of each system
- Materials and organization of materials in the system
- Implementation of each system in schools
- Research and evaluation data on each system

Three systems are assessed:

1. Program for Learning in Accordance with Needs (PLAN)
2. Individually Guided Education (IGE)
3. Individually Prescribed Instruction (IPI)

The report describes the development of each system, how the system works and the design constructs of the system. Research and evaluation data about the system are provided, along with an "Overall Assessment" of each system. An EPIElogue compares strengths and weaknesses of each system, as well as structural similarities and differences among PLAN, IGE and IPI.

Usefulness Related to CBE: The three competency based instructional systems assessed in the EPIE Report are model systems which feature individualized instruction. The purpose of one of these systems is an alternative to designing one's own competency based programs. Therefore, the indepth analytical descriptions should be particularly useful to educators who are either exploring potential systems or designing their own.

History of Development: Not available

Related Materials: A description of the IGE system has been included in this Sourcebook. (See page 685)

Ordering Information: Write: EPIE Institute
463 West Street
New York, New York 10014

Cost: EPIE Members $ 5.00
Nonmembers $10.00
(Discounts are available for quantity purchases)

This descriptions was adapted from Educational Dissemination and Linking Agent Sourcebook.

Title: System for Objectives-Based Assessment Reading (SOBAR)

Descriptor: An objectives-based system to measure reading achievement for K-12 students. Part of a mastery testing program in reading and mathematics.

Publication Date(s): 1975 (Materials for grades 10-12 will be available in late 1976)

Originator: Rodney Skager, SOBAR Project Director, Center for the Study of Evaluation (CSE), Graduate School of Education, UCLA

Intended Users: K-12 students in reading and schoolteachers and administrators who make decisions about resource allocation, classroom management, curriculum planning and instructional program evaluation in the area of reading

Purpose/ Content: SOBAR is designed to help identify students' specific weaknesses and strengths in reading skills through the development of custom-made objectives-based tests. Students are pretested and posttested on chosen objectives, and results may be used both in the evaluation of individual performance and in the planning and evaluation of instructional programs.

Presently, 162 objectives are listed for grades K-2 and 140 for grades 3-9. The number of objectives for grades 10-12 was unavailable for inclusion in this report.

In the first step for a custom-made test, a school district selects for each testing period 10-40 objectives from the catalogues of objectives at each grade level. Then the test is constructed by the publisher, containing three items for each objective. The publisher also prepares test booklets and instructions for test administration and delivers these to the school. As an optional service, test scoring can be provided by the publisher.

A second type of test, the "catalog test," is available. This test differs from the custom-made test in that the objectives for which it is testing have been preselected for various grade levels by curriculum experts.

Purpose/ Content: (Continued)

For both types of tests, the student must correctly complete all three items for an objective in order to demonstrate mastery.

The SOBAR system consists of a User's Guide, student test booklets, answer sheets, a catalog of objectives, a Guide to mastery testing and an Examiner's Manual.

Usefulness Related to CBE:

The collection is useful in a CBE context in two ways: first, it provides sets of objectives and test items for reading skills for persons who wish to choose from existing collections; second, it provides a management system for keeping records of student and class progress towards objective attainment.

History of Development:

SOBAR materials were developed by curriculum experts who analyzed the reading domain in order to determine the set of skills and competencies that any reading program might teach. At the same time pools of assessment materials were developed for each objective, enabling the development of tests consistent with the objectives.

Materials thus developed were reviewed by reading specialists and measurement experts to determine whether the collection of objectives was complete and to determine whether items in the assessment pools exhibited content validity.

SOBAR was used across the country in 1974 with students in grades 3-8. No data describing field testing or its results are available at the present time.

Related Materials:

None

Ordering Information:

Information about ordering SOBAR materials is available from:

Ms. Leigh Van Ausdall
Science Research Associates
259 E. Erie Street
Chicago, Illinois 60611

Ordering Information: (Continued)	The area representative in Oregon is:

Neil Schroeder
15200 S.W. 133rd
Tigard, Oregon 97223
(503) 639-4982

An SRA Catalog (available from persons listed) describes costs of SOBAR materials.

Title: TRACER

Descriptor: A computer program designed to assist the teacher with record-keeping

Publication Date(s): 1974

Originator: Educators' Alliance

Intended Users: School districts having programs based on measureable objectives. Teachers and students are the users of results of TRACER print-outs.

Purpose/ Content: TRACER is a management tool designed to assist teachers in keeping records, scoring tests and providing other feedback on student progress and performance.

To use TRACER, the curriculum is broken down into programs consisting of several units; each unit covers one or more objectives. The program of studies for each student consists of a sequence of units. One of the advantages of the TRACER system is that it can easily handle individualization in which each student's program consists of different units or in which groups of students have different programs.

With TRACER, the student may have the choice of several approaches to the mastery of the objectives of the unit. These approaches are called "Learning Guides," and each consists of a statement of unit objectives with suggested learning activities and resources.

A pretest and posttest on the objectives are included for each unit. TRACER also includes placement and achievement tests. All of the tests are scored by TRACER.

Each day the teacher provides specific information for the program and receives a print-out the next morning.

Usefulness Related to CBE:	TRACER is a computer program that could be used to perform the record-keeping and management functions of a CBE program. It lends itself readily to individualized instruction because it can track students individually and because it frees the teacher to spend more time with students.
History of Development:	Not available
Related Materials:	None
Ordering Information:	Order and cost information about TRACER is available from: Educator's Alliance 1060 Sierra Drive Menlo Park, California 94025

Title:	Individually Guided Education (Multiunit School Implementation)
Descriptor:	An alternative form of public schooling which focuses on student development through individualized curriculum and instruction
Publication Date(s):	Plans and materials for implementing Individually Guided Education (IGE) systems have been developed and revised continuously since 1969.
Originator:	Wisconsin Research and Development Center for Cognitive Learning
Intended Users:	A comprehensive program intended for use by a total elementary school staff. Facilitators from teacher education institutions, state education agencies, intermediate education agencies and local education agencies are trained in IGE concepts and practices.
Purpose/ Content:	IGE is a comprehensive system of schooling designed to produce higher educational achievements through providing for rate of learning, learning style and other characteristic differences among students. Every element and phase in the development, refinement and implementation of the system is designed to create conditions for effective educational planning, teaching and learning. In IGE, the broad range of phenomena ordinarly associated with education has been organized into seven components: 1. Multiunit School (MUS)--The MUS is the organizational structure designed to enable educational decision making, open communication and accountability to occur at appropriate levels of the school system. 2. Instructional Programming Model (IPM)--The IPM provides a framework for teaching children according to their own rates and styles of learning, levels of motivation and other characteristics, while taking into account the general educational objectives of the school. 3. Curriculum Materials and Instructional Procedures--The Wisconsin Research and Development Center has developed individualized curriculum materials and instructional procedures which are compatible with the IPM.

Purpose/ Content: (Continued)

4. Model for Measurement and Evaluation--The model includes assessment of each child's readiness, progress and final achievement through the use of criterion-referenced tests and other assessment procedures.
5. Program of Home-School-Community Relations--The students, staff, parents and citizens who make up the IGE school community must mutually understand each other's resources and expectations in order to create and maintain an optimum learning situation.
6. Facilitative Environments--Relationships established to maintain and strengthen IGE are developed among local, intermediate and state education agencies as well as state teacher education institutions.
7. Research and Development--If IGE is to remain viable, it must be capable of incorporating change. Continued research and development generate knowledge and programs related to curriculum, instruction and administration which can be infused into the IGE system.

Usefulness Related to CBE:

Performance objectives have been identified for schools to follow in implementing the IGE and minimal criteria in order to be considered an IGE school. The basic tenets of individualized instruction presented, however, are flexible enough to be adapted to any local district needs.

History of Development:

Since 1967, the Wisconsin Research and Development Center has worked cooperatively with educational agencies in developing the IGE system. The development of IGE has come about through an iterative process of (1) conducting research to discover more about how children learn, (2) developing improved instructional strategies, processes and materials for school administrators, teachers and children and (3) offering assistance to educators and citizens which helps transfer the outcomes of research and development into practice. After a developmental need for IGE was recognized, the following process was applied to the development of each aspect of the product: plan, develop, conduct expert review, tryout, revise and publish. At all stages of development, the substance and form of the product were evaluated.

In 1969-70, only 50 elementary schools, all in Wisconsin, were implementing IGE. By 1974-75, approximately 2,500 schools in 38 states had made the complex change to this new educational system.

History of Development: (Continued)

The rate of IGE implementation over the past seven years has been enhanced by funds from the U.S. Office of Education (USOE) and the National Institute of Education (NIE), and the commitment to IGE by thousands of local education agencies, state education agencies and teacher education personnel in 35 states.

Related Materials:

None

Ordering Information:

Write: Wisconsin Research and Development Center
for Cognitive Learning
1025 West Johnson Street
Madison, Wisconsin 53706

Cost:

16mm film: "Think Kids"	$125.00
Audiovisual package (set of five filmstrips each accompanied with an audiotape cassette)	$ 75.00
Print materials package (guidelines for implementation, prototypic agenda, unit school directory, workshop simulation and current annual report)	$ 50.00

This description was adapted from Catalog of NIE Education Products.

Title: Student-Centered Instructional System (SCIS): Mathematics

Descriptor: An objectives-based instructional system for seventh grade mathematics

Publication Date(s): 1975, 13 components, 35-40 pp. each

Originator: Myron Goff and Judy O'Steen, Developmental Research School, Florida State University

Intended Users: Seventh grade students who have a basic understanding of whole number arithmetic

Purpose/ Content: The purpose of the SCIS mathematics materials is to provide a complete instructional system utilizing performance objectives in seventh grade mathematics. Materials are designed for independent study but may also be used by groups of students.

The SCIS mathematics materials contain 13 main components, each of which is subdivided into many objectives. The components are:

1. Finite mathematical systems
2. The system of whole numbers
3. Number theory
4. Geometric figures
5. Fractions: the system of non-negative rational numbers
6. Decimals
7. Percents
8. Measures of geometric figures
9. The system of integers
10. Graphing in a coordinate plane
11. Congruences, perpendiculars, triangles, quadrilaterals
12. Measurement and error
13. Applied problems

A pretest, tests on objectives, review tests and a posttest accompany each component. In order to implement these materials, only certain commonly available and inexpensive materials are required, such as rulers and scissors.

Purpose/ Content: (Continued)

A record-keeping system for the SCIS mathematics materials has been designed that is based on the use of student data sheets. The data sheets maintain the following records:

- Date student begins studying an objective
- Date student takes criterion-referenced test on an objective
- Whether student passes the objective
- Date of second (and third) testing, if required
- Whether student passes second (or third) testing

Another feature of this system is its grading system which is based on an "expectation level" for each student. The expectation level determines how many objectives the student may be expected to achieve. Posttest scores and the number of objectives actually completed by the student (compared with that student's expectation level) yield the student's grade.

Usefulness Related to CBE:

This system readily lends itself to installation in a CBE context.

History of Development:

Developers report that the SCIS mathematics system has been under development for six years, during which time modifications "based on an evaluation derived from classroom operation or data collecting analyzing procedure" have been made.

Objectives for the program are reported by developers "to have been written based on instructional objectives common to most seventh grade mathematics courses of study. They have been repeatedly revised on the basis of student comments, computer analyses, and instructor perceptions."

"Several original methods and procedures have been incorporated into these materials. The approaches to union and intersection of sets, percents, and the consecutive numbering of both developmental exercises and practice exercises within an objective are all unique to these materials."

Related Materials:

None

Ordering Information:

Write: Robert H. Reiser
Center for Educational Design
The Florida State University
Tallahassee, Florida 32306

Costs: Not available

Title:	Planning the Education of Oregon Learners: Setting Goals
Descriptor:	A pamphlet for school districts which presents the statewide goals for education and discusses the purpose and rationale for statewide and local goals
Publication Date(s):	1975, 27 pp.
Originator:	Oregon Department of Education
Intended Users:	Educators in Oregon public schools who need a guide in setting local goals
Purpose/ Content:	The book presents the new statewide goals for education in Oregon. A problem solving system used to determine what schools are expected to accomplish, how much it will cost and progress toward this end is presented. It includes ten steps: 1. Set (or revise) goals 2. Conduct assessment 3. Identify needs 4. Prioritize needs 5. Develop (or modify) objectives 6. Identify alternate plans 7. Select (or modify) plans 8. Allocate (or shift) resources 9. Implement and operationalize plan 10. Evaluate plan and outcomes
Usefulness Related to CBE:	The book provides a simplistic approach to the shift of the rewritten minimum standards which focus on outcomes of education. As such, it should be helpful to districts in designing district, program and course goals which will be responsive to these standards.
History of Development:	In late 1973, 13 Goals Advisory Councils were nominated by school districts, intermediate education districts and community colleges. With the suggestions made by these Councils, new elementary/secondary goals were drafted and ultimately adopted by the State Board of Education in February 1974.

Related Materials:

- Planning the Education of Oregon Learners: Completing the Management Cycle (See page 693)

Ordering Information:

Write: Documents Clerk
Oregon Department of Education
942 Lancaster Drive N.E.
Salem, Oregon 97310

Cost: Free

Title:	Planning the Education of Oregon Learners: Completing the Management Cycle
Descriptor:	A pamphlet for school districts which describes procedures for gathering data on the extent to which statewide goals are being attained
Publication Date(s):	1975, 31 pp.
Originator:	Oregon Department of Education
Intended Users:	Educators in Oregon who need some help in assessing how well the statewide goals are being met
Purpose/ Content:	Statewide priority needs are presented along with an explanation of the relationship between statewide assessment and needs identification. In addition, an explanation of the State Board of Education's intent to evaluate and report district attainment of statewide goals is provided.
Usefulness Related to CBE:	This publication represents an effort by the State Department of Education to help schools in establishing accountability for instructional programs to taxpayers as well as learners.
History of Development:	In late 1973, 13 Goals Advisory Councils were nominated by school districts, intermediate education districts and community colleges. With the suggestions made by these Councils, new elementary/secondary goals were drafted and ultimately adopted by the State Board of Education in February 1974. Also approved was a planning system for Oregon education that assesses learner needs related to the goals and provides insights into outcomes of the educational process.
Related Materials:	• Planning the Education of Oregon Learners: Setting Goals (See page 691)
Ordering Information:	Write: Documents Clerk Oregon Department of Education 942 Lancaster Drive N.E. Salem, Oregon 97310 Cost: Free

Title:	Planning for Program Implementation: A Process Guide
Descriptor:	A guidebook for planning groups considering the implementation of an education project or program
Publication Date(s):	1975, 123 pp.
Originator:	A. L. Brokes and C. L. Jenks, Far West Laboratory for Educational Research and Development
Intended Users:	Building principals, curriculum directors and teachers who are involved in program planning and implementation of plans for instructional programs and projects
Purpose:	The purpose of this guide is to provide educators with guidelines for the implementation of educational plans and instructional programs. Through the use of a participatory management style, this unit helps staff deal with implementation issues relevant to their own programs.
Content:	This unit provides detailed directions and suggestions for accomplishing a number of subtasks: (1) writing a group mission statement, (2) determining personnel requirements, (3) material resources and school readiness, (4) planning the staff selection, purchasing schedule and staff orientation, (5) determining costs and the sequence of tasks, (6) establishing a timeline, (7) arranging an independent review of the plan. Suggestions are made for structuring the group planning session. Task work sheets, a glossary of terms and a bibliography are also provided.
Usefulness Related to CBE:	This book provides a systematic method for implementing an educational program or plan and is directly applicable to a CBE program.
History of Development:	Information is not available
Related Materials:	None

Ordering Information: Copies of this document are available (Order No. ED 102 741) from:

ERIC Document and Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Cost: $ .83 (microfiche), $6.01 (hardcopy)
Plus postage

Title:	Handbook for Goal-Based Curriculum Planning and Implementation
Descriptor:	A handbook designed for educators who want to implement a goal-based instructional curriculum
Publication Date(s):	1975, 34 pp.
Originator:	Office of the Superintendent of Public Instruction, Olympia, Washington
Intended Users:	Educators desiring to implement goal-based curriculum in a district, a school or a single classroom
Purpose:	According to the developers, the purpose is "to provide districts with a planning sequence to help them systematically develop and implement curriculum based on the Goals for Washington Common Schools.
Content:	This handbook leads the reader through a series of steps designed to assist him or her in the systematic implementation of a goal-based curriculum. Steps specified include identifying needs, organizing for action, developing district goals, developing/selecting course goals, instructional objectives and instructional strategies, developing assessment procedures and synthesizing instructional design. Suggested checkpoint activities for each of these steps are provided. Also included is a glossary of terms used in the presentation of this goal-based curriculum model.
Usefulness Related to CBE:	This model readily lends itself to the design and implementation of a competency based education curriculum.
History of Development:	This manual was developed by the goal-based curriculum committee of the Basic Education Section of the Office of the Superintendent of Public Instruction in Washington. It was submitted to field review and reaction. Revisions were made based upon the data obtained.
Related Materials:	None

Ordering Information:

Write: Bill Radcliffe, Jr.
Director, Basic Education Section
Superintendent of Public Instruction
Olympia, Washington 98504

Cost: Free

Title:	The Computer in Educational Decision-Making: An Introduction and Guide for School Administrators
Descriptor:	A text which uses interactive computer programs and supporting instructional materials to provide hands-on experience in using operations research techniques in management and administration
Publication Date(s):	Scheduled for Fall 1978
Originator:	Susan Sanders et al., Northwest Regional Educational Laboratory (NWREL), Portland, Oregon
Intended Users:	School administrators interested in understanding operations research techniques in educational planning and decision making
Purpose:	According to the developers, "the purpose of this book is to provide the educational administrator with a working understanding of the most useful operations research techniques and experience in using computers to provide the background computations required by each. The emphasis throughout the text is on the practical application of the techniques to educational problems. The text presupposes only that the user has access to a computer. The use of computer programs and the interpretation of their results for decision making are taught in the text, and all complex mathematical manipulations underlying the application of the techniques are left to the computer."
Content:	The initial chapter presents an introduction to educational decision making and operations research as well as an overview of four operations research techniques. Each of the following chapters presents a specific technique in sufficient detail to provide a working knowledge of that method; the techniques include PERT, linear programming, queueing theory and computer simulation.
Usefulness Related to CBE:	Assists educational administrators in applying the tools of operations research to aid in more efficient and effective decision making.

History of Development: These materials were subjected to extensive peer review, testing and revision. Pilot testing was conducted in college classes (N=82) of regular students and practicing administrators. Field testing included testing against "competitor" materials in a sample of college students in educational administration classes at two universities; a cost/benefit evaluation was included. In comparison with likely competitors, the materials were found to be significantly more valuable: they had more positive side effects, and they were more cost-effective.

Main Activities: For maximum effectiveness, the book requires access to a computer terminal for interaction with a program. The emphasis is on the practical application of O.R. techniques to real educational problems. The use of the computer programs and the interpretation of their results for decision making are taught in the text.

Provisions: for Use: **Format:** The course may be used in a university education curriculum, in an inservice class for students and educators or in an individual study program. These materials have been more successful when used as part of a formal course, rather than in self-instructional mode.

Personnel: Wherever tests were conducted, it was found that the greatest need for assistance always arose during setup: in orienting the coordinator, supplying materials and tests and establishing procedures. After setup, any problems that arose could be handled by telephone.

Product Components: This book provides complete computer program listings as well as sample program runs.

Time Span: Approximately 20 hours

Conditions of Use: The materials are designed to be used with a computer and computer terminals, but they also may be used effectively without computer access. Therefore, they can and are being used where computer systems are available as well as in regular classroom situations.

Related Materials:

- Relevant Educational Applications of Computer Technology (REACT) Course I (See page 707)
- Relevant Educational Applications of Computer Technology (REACT) Course II: Computer-Oriented Curriculum (See page 647)
- Computer Applications in Instruction: A Teacher's Guide to Selection and Use (See page 547)

Ordering Information:

Write:
Time Share Corporation
Computer Publications
630 Oakwood Avenue
West Hartford, CT 06110

Cost: School price $14.85 (Hardbound)
Plus postage

Title: Program Evaluation Skills for Busy Administrators

Descriptor: A training workshop designed to provide educational administrators with skills for designing and conducting an evaluation and for utilizing the results

Publication Date(s): Second Printing, August 1977

Originator: Thomas Owens and Warren Evans, Northwest Regional Educational Laboratory (NWREL), Portland, Oregon

Intended Users: School administrators responsible for conducting or using the results of an activity or program evaluation

Purpose/ Content: The workshop, manual and handout materials are designed to assist educational administrators in planning and carrying out evaluation activities. The material in the manual is designed to provide guidelines for the user which will enable her or him to:

- Identify the purposes and audiences for evaluation
- Prepare a basic description of your program or activity[1]
- Refine educational objectives and establish a priority for the evaluation of each
- Describe resources and processes to be used in achieving objectives
- Specify alternative decisions likely to be made about a program
- State evaluation questions
- Establish evaluation guidelines to make the evaluation coonsistent with the demands of funding agencies, district policy, local concerns and ethical principles
- Identify available resources for conducting an evaluation

[1] An activity is considered here as a single function or event such as a two-day teacher workshop. A program is considered as a set of activities systematically organized to achieve specific outcomes such as a reading program in a school.

Purpose/ Content: (Continued)

- Specify data sources
- Determine appropriate ways to measure selected processes and outcomes
- Apply the guidelines stated in the manual to measurement instruments
- Establish and apply criteria for the selection of an evaluation specialist
- Prepare a basic evaluation plan for collecting, analyzing and reporting information
- Make judgments regarding various types and formats for evaluation reporting
- Use various types of evaluation findings

Usefulness Related to CBE:

In setting up or implementing a CBE program it is important to build in an evaluation design that can evaluate student CBE performance as well as assess the community's reactions to CBE, the impact it has on the regular school curriculum and the attitudes of students toward CBE. Program Evaluation Skills can assist administrators in these activities.

History of Development:

The development of Program Evaluation Skills began in 1976 under contract with the Western Regional Interstate Planning Project (WRIPP). The initial design was reviewed by WRIPP and materials were developed and evaluated in pilot testing with 30 administrators from Oregon in December 1976. A complete rewrite was done on the basis of this pilot testing and the new materials were field tested in four other states. Based on these experiences, some additional improvements were made in the second printing.

Main Activities:

The workshop is composed of seven learning activities varying in length from one to two hours each. Total time required for the workshop is twelve hours. Participants read about and discuss various evaluation aspects. Additionally, they engage actively in the preparation of an evaluation plan which includes data collection, analysis and reporting functions. Handouts consist of work sheets which assist trainees with these tasks and aid them in monitoring their own progress.

Provisions: for Use:

Format: Designed as an administrators' workshop
Personnel: A workshop leader familiar with these materials and with program evaluation is required. If there are more than 20 participants, two workshop leaders are recommended.
Product Components: Materials consist of the manual, the Workshop Leader's Guide and handouts.

Provisions for Use: (Continued)

Time Span: A total of twelve hours. The workshop units provide the flexibility of a two-day workshop or a series of several hour-long sessions over an extended period.

Related Materials:

None

Ordering Information:

Write:
Director of Marketing
Northwest Regional Educational Laboratory
710 S.W. Second Avenue
Portland, Oregon 97204
(503) 248-6950

Cost:

Program Evaluation Skills for Busy Administrators--Manual	$ 6.00
Program Evaluation Skills for Busy Administrators--Workshop Leader's Guide	2.00
12 Handouts padded in quantities of 25	15.00 per set of all 12 handouts or $1.50 each

Payment must accompany each order of $15.00 or less.

MANAGEMENT:
DEVELOPMENTAL INSTRUCTIONS

Title:	Relevant Educational Applications of Computer Technology (REACT) Course I: Computers in Education: A Survey
Descriptor:	A training course to introduce school personnel to the potential applications of computer technology to their field and to introduce the student to the BASIC language, beginning computer concepts, related equipment and their functions
Publication Date(s):	November 1971
Originator:	Northwest Regional Educational Laboratory (NWREL), Portland, Oregon
Intended Users:	Educators who are interested in using computers in administration or in subject areas and students interested in applying the computer in their chosen field of endeavor
Purpose:	The REACT computer training courses were developed in recognition of the fact that a degree of "computer literacy" is valuable for all educators today. Goals: The goal of the REACT program is to equip the educator to make decisions about the use of computers in administration or in a particular subject area. Educational uses of computers are presented in the broader context of the study of elementary computer concepts and the role of the computer and introduce computer functions to those who have had little or no previous experience. Objectives: Each of the ten books comprising the course contains a list of objectives to help direct the reader.
Content:	The main goal of the course is accomplished by providing a background in basic computer concepts, some experience in programming a computer, an appreciation of the social impact of the computer and hands-on experience with administrative and instructional applications.
Usefulness Related to CBE:	There are many implications for CBE in the area of educational computer technology. With some understanding of these concepts, the educator will be more competent in decisions relative to computer applications.

History of Development: These materials went through field testing. User feedback was used as a basis for revising materials.

There is no information available as to how or where the field testing was conducted. The data show that 71 percent of the students achieved an average score of 70 percent or better for all manuals in the self-instructional mode. Data for the group presentation class show that 72 percent of the students achieved the same success role. Apparently, the mode of presentation does not contribute significantly to success and the materials adapt well to either mode. The materials have not been analyzed for racism, sexism or other bias.

Main Activities: Many of the books involve some work on a teletype terminal. In book 4 of Course I, the student learns to use a teletype. After reading each book, students evaluate their comprehension by taking a self-quiz. If students score less than 80 percent, they are asked to review, paying particular attention to the points they missed. The suggested bibliography guides students to helpful supplementary resources. There is a self-quiz with each unit.

Provisions for Use: Format: The course may be used in a university education curriculum, in an inservice class for students and educators or in an individual study program. More success has been realized when these materials have been used as part of a formal course, rather than in self-instructional mode.
Product Components: There are ten texts which make up this course. In many of the books, the introduction lists special equipment or supplementary materials that are needed. Success in the course depends upon use of the required equipment and practice in solving the problems that are presented. Special equipment and services are: computer with BASIC compiler, computer terminal ASR 33 teletypewriter or equivalent and a computer expert available to answer questions.
Time Span: Approximately 30 hours

Conditions of Use: The materials are designed to be used with a computer and computer terminals but they also are being used without computer access. Therefore, they can be used in regular classroom situations.

Related Materials:

- Relevant Educational Applications of Computer Technology (REACT) Course II (See page 647)

Ordering Information:

Write:

Tecnica Education Corporation
1864 South State Street
Salt Lake City, Utah 84115

Cost:

Set of 10 books (One set per student)	$27.95 per set
REACT and the Computer in Education	$ 2.95
Flowcharts and Algorithms	2.95
Man-Machine Languages	2.95
Using the Teletype	2.95
The Social Impact of Computers	3.95
Teach Yourself BASIC I	2.95
Teach Yourself BASIC II	2.95
Computers in Instruction	2.95
Computers in School Administration	2.95
Computers in Guidance, Testing & Libraries	2.95

Computer with a BASIC compiler (1) depends on system. About two hours terminal connect time per student.

Title: /I/D/E/A/ Change Program for Individually Guided Education, Ages 5-19

Descriptor: A teacher inservice program aimed at individualizing learning and continuous improvement of the staff and school

Publication Date(s): 1970 through 1976

Originator: Institute for Development of Educational Activities, Inc. (/I/D/E/A/)

Intended Users: School personnel wishing to implement an individualized instruction program in their school, along with processes for continuous development

Purpose:

Goals:

1. To individualize learning
2. To promote continuous improvement of school and staff

Objectives: There are 35 outcomes printed on "outcome pages" in the Implementation Guide. Each of these pages has five sections: (1) self-assessment or the degree of achievement of the outcome, (2) /I/D/E/A/ materials specifically related to the outcome, (3) suggestions for implementing the outcome, (4) inservice activities to learn about the outcome and (5) the period of time when the outcome was selected for emphasis.

Content: The training materials consist of films, filmstrips and print documents designed for use in professional growth programs. The contents of the Implementation Guide parallel the major areas treated in the program. Chapter 1 of the guide provides suggestions and activities to help in using the guide. Chapter 2 explains briefly how Individually Guided Education (IGE) works within schools and communities. Chapter 3 lists the outcomes. Chapter 4 lists and explains materials for use in implementation of the program. Following these chapters are outcome pages, glossary and index.

Materials are classified for use according to their application to either of the two primary process elements of (1) individualizing learning or (2) continuous improvement.

Usefulness Related to CBE: The program has specific goals which clarify identifiable outcomes on which teachers may work.

History of Development: The program is the result of several years of research and development conducted cooperatively with many people and institutions. The authors provide the following description:

"In 1970, there were 125 schools participating in the project. Today, more than 1,700 schools in 37 states, plus American-sponsored schools in approximately two dozen other countries, are in some phase of implementing the IGE processes.

"Each phase of developing IGE has been accompanied by special attention to evaluation. Initially, we examined research relating to selected school practices that ultimately became a part of IGE. The way we combined these practices into a comprehensive design for use in schools was analyzed intensely by selected teachers and administrators and by university scholars.

"The IGE training materials and clinical workshops that have emerged from our developmental efforts have been shaped by both formal and informal studies of their effectiveness. We continue to operate and refine a comprehensive system of monitoring the extent to which the IGE concepts are being implemented in participating schools."

A 1978 evaluation report is available from /I/D/E/A/. The data are based upon inquiries regarding the effects of IGE and summaries of 2,800 interviews of administrators, teachers, parents and students regarding their feelings about aspects of IGE.

Main Activities: Activities are centered around learning about the outcomes. These activities are the same for each outcome and are as follow:

1. Read print documents
2. View films and filmstrips
3. Discuss the "Items for Discussion" in the filmstrip study guides
4. Consult with the facilitator
5. Interact with others in the school
6. Establish a task group to research this outcome in the related literature and media
7. Invite others to come to the school to clarify, explain and assist with implementing this outcome
8. Visit and observe others in the League who have achieved this outcome

Main Activities: (Continued)

9. Participate in an exchange with a person from another school involved in the program
10. Attend IGE conferences and clinical workshops

Provisions for Use:

Format: An intermediate agency recruits interested schools and then sends a trained facilitator to work with schools from the beginning of the program.

Personnel: In order to have credibility with the school staff the facilitator should have previous experience at the same level, e.g., elementary, middle school, etc. Personal traits should include being energetic, supportive, empathetic and a problem solver. The facilitator attends a two-week clinical workshop with extensive training in the 35 outcomes and then attends a three-day followup where the five facilitator outcomes are studied.

Product Components: IGE materials for each of three levels (ages 5-12, 10-15 and 14-19) include: two films, one providing an overview of IGE and the other acquainting the staff with procedures for group problem solving; 15 filmstrips and accompanying study guides; seven print documents to use in investigating, implementing, innovating and improving.

Time Span: It takes about a year to get the program started and one or two additional years for most of the 35 outcomes to be implemented.

Conditions of Use:

While the outcomes are written in a suggested sequence, alterations may be made depending on local situations, the existing level of attainment of some of the outcomes, etc. Before developing a sequence some kind of assessment should be made for each outcome.

Related Materials:

- Individually Guided Education (Multiunit School Implementation) (See page 685)

Ordering Information:

Write: John M. Bahner
/I/D/E/A/
5335 Fair Hills Avenue
Dayton, Ohio 45429

Current price information is available from the originator upon request. Materials are available only to those who have participated in the training programs.

Title:	School Planning, Evaluation, and Communication System (SPECS)
Descriptor:	A set of processes for collecting and analyzing data describing school system outcomes, processes and costs
Publication Date(s):	1976, components for program utilization; 1976 (Revised), instructional materials; 1975, illustrated monograph of program overview
Originator:	John M. Nagle, Harold E. Walker and Lloyd A. DuVall, Center for Educational Policy and Management (CEPM), University of Oregon
Intended Users:	Users of SPECS materials and processes are school district professional staff. Teachers use materials to collect achievement information about students. Teachers and administrators use the materials to analyze, plan and evaluate the curriculum. Citizens use SPECS processes indirectly by their involvement in district goal setting. Finally, boards of education use information generated by SPECS in making district policy decisions.
Purpose:	Goals: Schools using SPECS will be able to plan, implement, evaluate and replan programs of activities using actual performance data. SPECS provides processes for assisting schools in collecting six types of program information--outcomes, processes and inputs (desired and actual). SPECS allows those responsible for programs to make this information explicit and to use it systematically as they develop initial plans, monitor processes during implementation, evaluate results and eventually formulate new plans for the next cycle of operations. Objectives: The objectives must be stated as they relate to each of the five components: 1. To provide information on current status and identify hierarchical relationships among current programs and activities 2. To produce an annual program budget and periodic program accounting reports 3. To produce procedural guides/work aids for program planning and evaluation

Purpose: (Continued)

4. To provide means for citizen participation in setting broad educational goals
5. To produce periodic reports identifying specific district needs and setting priorities for dealing with these needs

Content:

The main subject areas covered are administrative systems and instructional management systems pertaining to procedures for: (1) building a school district program structure, (2) converting to a program budget format, (3) collecting data about student outcomes, (4) community definition of a school district's goal structure and (5) determining matches between community goals and student outcomes.

Usefulness Related to CBE:

SPECS addresses some of the most common problems in education today--evaluation of programs, accountability, community involvement and finance. In other words, school districts are provided with a system for identifying what they are trying to do for students, how they are trying to do it, related costs and the results of these efforts.

History of Development:

SPECS was pilot tested in an Oregon school district of approximately 3,500 students and 175 staff members. The development staff worked closely with these teachers and administrators. Data were collected for purposes of revision and modifications.

In 1974, SPECS was field tested in approximately 13 school districts and one community college in seven states. At this point data were gathered to test implementation strategies, inservice training approaches and a pattern of dissemination involving local consultants. This field test phase ended in August 1976, which marked the official ending of the SPECS program.

Main Activities:

- Collecting and displaying data about the district's current array of instructional and noninstructional functions, activities or programs
- Developing forms and procedures for collecting and displaying data, translating the district's current operating budget from line item format to program format and developing a computerized data processing system to handle expected flow of budgetary and expenditure data relevant to each program
- Writing instructional goals and objectives, selecting program methods and materials for implementing these and collecting and interpreting data about actual student performance

Main Activities: (Continued)

- Involving a representative sample of citizens in generating and reviewing a set or structure of broad educational goals
- Perceiving summarized program education data
- Familiarization of community's broad goals
- Determining lack of consonance between program evaluation data and community goals
- Developing recommendations to meet needs presented by gaps between the program evaluation data and the community goals

Provisions for Use:

Format: Written materials

Personnel: A school district administrative staff member is usually selected to coordinate all SPECS activities. Outside consultant help of ten to 15 days is desirable during the first year of implementation. Involvement of all professional staff is required.

Product Components:

- SPECS: What It Is and What It Does--An illustrated monograph which presents a broad overview of SPECS as a system, including a description of each component and how they interrelate
- The Component One Implementation Booklet: A Systems Analysis of a School District--Explains the rationale and objectives of Component One. Includes three alternative approaches for completing a systems analysis of a district
- The Component Two Implementation Booklet: Program Budgeting and Cost Accounting--Describes fourteen steps toward implementing a program budgeting and cost accounting system
- The Component Three Implementation Booklet: Instructional Program Planning, Evaluation and Communication--Explains the rationale and objectives of program planning and evaluation. Includes detailed suggestions for implementing a planning and evaluation system, simulated materials for classroom use and "how to" write objectives and summarize data
- Instructional Program Summary Plan--Four-page document summarizing program's objectives, procedures and resources prior to implementation
- Instructional Program Summary Report--Six-page document which summarizes objectives, student performance data and assessment results
- Record of Instructional Program Objectives--Self-contained booklet for recording instructional program objectives including cognitive, affective and psychomotor

Provisions for Use: (Continued)

- Weekly Lesson Plans (For One Program)--Designed for one-year coverage, the plan book records objectives, instructional procedures and formative evaluation of each week
- Weekly lesson plans (for up to three programs)--same as above, except space is provided for three programs
- The Component Four Implementation Booklet: Community-Based Broad Goal Definition--Provides step-by-step information needed to implement Component Four
- A Supplement to the Component Four Implementation Booklet: Broad Goal Definition in Emerald School District--Describes in detail how personnel in the fictitious Emerald School District implemented Component Four
- The Component Five Implementation Booklet: Assessing Achievement of the District's Broad Goals--Provides suggested means of determining the match or gap between community defined educational goals and the district's instructional objectives

Conditions of Use:

A high level of commitment is necessary from administrative staff and teachers. Implementation requires several steps:

- District-wide planning committee determines specific implementation strategy
- Implementation plan identifies time lines, needed resources, program areas for initial attention, and monitoring process
- Initial implementation efforts (i.e., inservice sessions, information sharing efforts, etc.)
- Initially identified activities made operational

Use of a phase-in strategy appears to be most successful.

Related Materials:

- CSE Evaluation Workshops
- Evaluation for Program Improvement (See page 431)
- Administering for Change Program (RBS)

Ordering Information:

Write: Center for Educational Policy and Management
University of Oregon
1472 Kincaid Street
Eugene, Oregon 97403

Cost: Orientation Materials:
SPECS: What It Is and What It Does (1 per bldg.) $ 4.00

Ordering Information: (Continued)

Implementation Booklets:

Component 1 (1 per building)	$ 2.00
Component 2 (5-6 per district)	3.00
Component 3 (1 per staff member)	3.00
Component 4 (10-12 per district)	2.00
Component 5 (1 per building)	2.00

Operational Documents:

Instructional Program Summary Plan (1 per teacher)	$ .40
Instructional Program Summary Report (1 per teacher)	.40
Record of Instructional Program Objectives (1 per teacher)	1.15
Weekly Lesson Plans (1 per teacher)	
for one program	1.00
for up to three programs	2.50

Title:	System Approach for Education (SAFE): Planning Management Evaluation Skills
Descriptor:	An inservice workshop providing teachers and administrators with skills for managing learner experiences
Publication Date(s):	1972
Originator:	R. E. Corrigan Associates in conjunction with the Northwest Regional Educational Laboratory
Intended Users:	Teachers and administrators seeking to improve their effectiveness as managers of the student learning environment
Purpose/ Content:	According to the developers, "this instructional system is designed to provide educators with the knowledge, skills and techniques for analyzing, planning, designing, implementing and evaluating educational management plans by applying the tools of system analysis and system synthesis. The skills include: ● Assessing needs ● Defining goals ● Stating mission objective ● Specifying performance requirements ● Specifying mission constraints ● Deriving a mission profile ● Performing function analysis ● Performing task analysis ● Performing methods/means analysis ● Identifying solution alternatives ● Selecting feasible solution strategy ● Implementing a solution strategy ● Evaluating the solution strategy implementation ● Utilizing continuous revision to accomplish mission objective"
Usefulness Related to CBE:	Workshop participants should find themselves to be better learning managers, having learned how to apply system technology planning techniques to areas of curriculum and instruction.
History of Development:	Two versions of this system were field tested at five workshops with 108 elementary and secondary teachers. Revisions, reanalysis and replanning were carried out on the basis of data gathered during and following those tests.

History of Development: (Continued)	One of the versions was received slightly more positively than the other. Data collected on the more positive version (available commercially) revealed that 88 percent of the participants found the workshop worthwhile and 68 percent were positive in their response to items relating to the relevance of the system. Significant cognitive gains were made by trainees; out of a possible score of 38, the mean score was approximately 18. Attitudinal measures indicated participants were more positive about 11 aspects of the system after completing it than they were before.
Main Activities:	Participants proceed through materials sequentially, utilizing simulation trials, interaction for feedback and interdependent activities. Participants are required to carry out a self-selected classroom management project.
Provisions for Use:	Format: Inservice or preservice workshop organized into four major units of work Personnel: One qualified trainee can train approximately 21-24 participants. Product Components: A coordinating manual and one set of audiovisual materials are needed for each trainer, and a participant manual is needed for each trainee. Time Span: The activities of this four-unit workshop can be completed in a total of 36 hours.
Conditions of Use:	Participants must be present at every session of this group workshop since materials are sequential and cumulative. The developer alerts potential users to the fact that release time may need to be provided for school personnel in order to facilitate their participation.
Related Materials:	None
Ordering Information:	Write: R. E. Corrigan Associates P.O. Box 5089 Anaheim, California 92804 Cost: Price of participant manual, audiovisual materials and training available from publisher.

Title: SWRL Proficiency Verification System (PVS): Reading

Descriptor: Semi-automated system which provides information about reading instruction and achievement

Publication Date(s): September 1976

Originator: SWRL Educational Research and Development (SWRL)

Intended Users: Teachers and administrators working with elementary school reading programs

Purpose: The system provides information about the instructional value of commercially available programs in elementary school reading.
Goals: The primary goal of the system is to enable teachers and administrators to identify which basic proficiencies pupils have achieved through use of an instructional program. PVS allows teachers and administrators to relate pupils' accomplishments to the skills that they have had the opportunity to learn and practice. It also provides regional results, describing performance in other widely-adopted programs.
Objectives: Specific instructional objectives keyed to programs and grade levels

Content: The basic component of PVS is the Proficiency Skills Inventory (PSI) administered at the end of the school year. The PSI includes a broad range of test items representative of major commercial reading programs. The entire range of items for each PSI is spread over multiple test forms; however, each child completes only one form of the test. A specific set of items is common across all test forms, and it focuses on benchmark skills such as decoding, sentence meaning, morphology and comprehension. From the PSI, separate reports are generated for district coordinators, principals and teachers. Beginning Skills and Mid-Year Inventories (BSI, MYI) are also available, but they test and report just the benchmark skills.

Usefulness Related to CBE: The user may install this system to determine the effectiveness of reading instruction.

History of Development:

In 1975 and 1976 the first version of the system was tested with more than 20,000 pupils. In 1977, the revised, fully-integrated system operated with 20,000 pupils in four states. The system is open-ended and therefore can readily incorporate innovations in computer electronics and the educational curriculum.

Main Activities:

The simplicity and flexibility of PVS operations accommodate each district's unique decision making and organizational structure. PVS operations are easily monitored by one person designated within the district as PVS coordinator and by individual school principals. Participation in PVS includes the following basic activities:

- District personnel identify anticipated scope of PVS participation, the reading programs and other materials being used.
- During the year, participants are sent appropriate resources to initiate PVS using various PVS components with the designated programs.
- The district returns all assessment materials to SWRL for scanning, scoring and reporting.
- SWRL sends PVS Class, School and District Reports to appropriate district and school personnel.

Training materials and procedures are provided by SWRL to familiarize key school personnel with PVS operations and applications. An early orientation helps prepare administrative, supervisory and instructional personnel to derive maximum advantage from PVS participation and use of the reading programs.

Provisions for Use:

Format: Assessment information system; PVS reports are used by school personnel during the year to make instructional and management decisions.
Personnel: District and school administrators and teachers
Product Components: Proficiency Skills Inventory and District, Class and School Reports; Beginning Skills Inventory and Report (optional); Learning Mastery Pupil Profiles (optional); and Mid-Year Inventory and Report (optional).
Time Span: Approximately one school year is needed to correspond with reading program usage.

Conditions of Use: To initiate PVS use, district personnel participate with SWRL in identifying programs and program materials available in district classrooms and basic ways these materials are used during instruction.

Related Materials:

- SWRL Learning Mastery Systems (LMS): Reading and Mathematics
- SWRL Quality Assurance (QA) Information Service
- SWRL Learning Center Resource Kits

Ordering Information: The PVS service is currently available for a nominal operating fee. The entire system can be installed in districts which have the appropriate scanner and computer facilities, for a nominal consultation fee. Information regarding service or system opportunities is available from:

Write: SWRL Educational Research and Development
Division of Resource Services
4665 Lampson Avenue
Los Alamitos, California 90720

Cost: (As of December 1, 1977)
Service: $1.00 per pupil
System Installation: Negotiable

Title: SWRL Proficiency Verification System (PVS): Mathematics

Descriptor: Semi-automated system which provides information about mathematics instruction and achievement

Publication Date(s): September 1976

Originator: SWRL Educational Research and Development (SWRL)

Intended Users: Teachers and administrators working with elementary mathematics programs

Purpose: The system provides information about the instructional value of commercially available programs in elementary school mathematics.
Goals: The primary goal of the system is to enable teachers and administrators to identify which basic proficiencies pupils have achieved through use of an instructional program. PVS allows teachers and administrators to relate pupils' accomplishments to the skills that they have had the opportunity to learn and practice. It also provides regional results, describing performance in other widely-adopted programs.
Objectives: Specific instructional objectives keyed to programs and grade levels

Content: The basic component of PVS is the Proficiency Skills Inventory (PSI) administered at the end of the school year. The PSI includes a broad range of test items representative of major commercial mathematics programs. The entire range of items for each PSI is spread over multiple test forms; however, each child completes only one form of the test. A specific set of items is common across all test forms, and it focuses on benchmark skills such as number recognition, computation, measurement and verbal problem solving. From the PSI, separate reports are generated for district coordinators, principals and teachers. Beginning Skills and Mid-Year Inventories (BSI, MYI) are also available, but they test and report just the benchmark skills.

Usefulness Related to CBE: The user may install this system to determine the effectiveness of mathematics instruction.

History of Development:

In 1975 and 1976 the first version of the system was tested with more than 20,000 pupils. In 1977, the revised, fully-integrated system operated with 20,000 pupils in four states. The system is open-ended and therefore can readily incorporate innovations in computer electronics and the educational curriculum.

Main Activities:

The simplicity and flexibility of PVS operations accommodate each district's unique decision making and organizational structure. PVS operations are easily monitored by one person designated within the district as PVS coordinator and by individual school principals. Participation in PVS includes the following basic activities:

- District personnel identify anticipated scope of PVS participation, the mathematics programs and other materials being used.
- During the year, participants are sent appropriate resources to initiate PVS using various PVS components with the designated programs.
- The district returns all assessment materials to SWRL for scanning, scoring and reporting.
- SWRL sends PVS Class, School and District Reports to appropriate district and school personnel.

Training materials and procedures are provided by SWRL to familiarize key school personnel with PVS operations and applications. An early orientation helps prepare administrative, supervisory and instructional personnel to derive maximum advantage from PVS participation and use of the mathematics programs.

Provisions for Use:

Format: Assessment information system; PVS reports are used by school personnel during the year to make instructional and management decisions.

Personnel: District and school administrators and teachers

Product Components: Proficiency Skills Inventory and District, Class and School Reports; Beginning Skills Inventory and Report (optional); Learning Mastery Pupil Profiles (optional); and Mid-Year Inventory and Report (optional).

Time Span: Approximately one school year is needed to correspond with mathematics program usage.

Conditions of Use: To initiate PVS use, district personnel participate with SWRL in identifying programs and program materials available in district classrooms and basic ways these materials are used during instruction.

Related Materials:

- SWRL Learning Mastery Systems (LMS): Reading and Mathematics
- SWRL Quality Assurance (QA) Information Service
- SWRL Learning Center Resource Kits

Ordering Information: The PVS service is currently available for a nominal operating fee. The entire system can be installed in districts which have the appropriate scanner and computer facilities, for a nominal consultation fee. Information regarding service or system opportunities is available from:

Write: SWRL Educational Research and Development
Division of Resource Services
4665 Lampson Avenue
Los Alamitos, California 90720

Cost: (As of December 1, 1977)
Service: $1.00 per pupil
System Installation: Negotiable

Title: Designing an Effective Instructional Management System: A Competency-Based Curriculum Development Module

Descriptor: A preservice and inservice program designed to provide curriculum development skills for classroom teachers, supervisory and administrative personnel

Publication Date(s): 1972, 183 pp.

Originator: John H. Bolden, Florida State University

Intended Users: Classroom teachers, supervisory and administrative personnel

Purpose: This curriculum development program is designed to help educators design effective instructional programs. According to the developer, "the purpose of this module is to aid the preservice and inservice teacher, supervisory personnel and school administrators in designing an instructional system that insures effective learner outcomes."

Content: Designing the instructional management system involves four stages: (1) planning the system, (2) producing the system, (3) prototype testing of the system and (4) evaluating the system.

The author provides a guide to designing an instructional management system in 13 chapters:

- Rationale
- Educational Philosophical Belief System
- Pre-Assessment Instrument
- Diagnostic Self-Test for Classifying Types of Objectives
- Generating Objectives for an Instructional Management System
- Teaching By Objectives
- Designing a Functional Flow Chart
- Formulating Assessment Procedures
- Designing Learning Activities
- Program Format
- Developing a Management Plan
- Synthesizing and Terminal Component
- Post-Assessment

Usefulness Related to CBE: This program provides guidance to educators who need to learn how to develop an effective instructional system.

Ordering Information:

Write: BCM Press
1816 W. 20th Street
Jacksonville, Florida

Cost: Not specified

MANAGEMENT: REFERENCES

Title: Opening Institutional Ledger Books--A Challenge to Educational Leadership: ERIC/TM Report #28

Descriptor: A report which describes ways of reporting test data to parent and community groups

Publication Date(s): 1974, 13 pp.

Originator: Edwin P. Larsen, ERIC Clearinghouse on Tests, Measurement and Evaluation, Educational Testing Service (ETS)

Intended Users: Evaluators and other educational personnel who need to explain test data to audiences who lack sophistication in measurement

Purpose: The purpose of this report is to provide information and guidelines about ways in which various kinds of test data may be effectively reported to the public. Use of procedures suggested in this report is expected to result in greater public understanding of testing and of the interpretation of test data.

Content: Three topics are presented to the reader in a lesson format. The first lesson explains ways of developing public understanding of tests and testing. The second lesson describes how to chart the results of tests so that information is clearly and easily understood. The third lesson provides guidelines for discussing results and stresses discussion of the schools' accountability for test scores.

Usefulness Related to CBE: Although this report does not specifically discuss objectives-based tests, the suggestions and methods contained therein appear to be useful in building public understanding of the role of testing in a CBE program.

Related Materials: None

Ordering Information: Copies of this document are available (Order No. TM 004 303) from:

ERIC Clearinghouse on Tests, Measurement and Evaluation
Educational Testing Service
Princeton, New Jersey 08540

Cost: $ .83 (microfiche), $1.67 (hardcopy)
Plus postage

Title: Evaluating Classroom Progress

Descriptor: A brief report which describes a system for continuous classroom evaluation of individual learners

Publication Date(s): 1973, 3 pp.

Originator: Don Bushell, Jr., Department of Education, University of Kansas, and the Behavior Analysis Program of Project Follow-Through

Intended Users: For educational evaluators at the district level who are concerned with developing evaluation systems related to ongoing instruction

Purpose: Proponents of the system described in the report point out that a relevant evaluation system "provides frequent information about the progress or the lack of progress being made toward the final objective--a system that measures change."

Content: The paper, which was presented at the American Educational Research Association Meeting, February 1973, outlines a general procedure. It is correlated to the instructional objectives written for the program but is nevertheless applicable to any instructional plan. The steps are outlined as follows: (1) an instructional objective is defined--this is compared to entry level skill of each student and steps are written to be accomplished in the 40-week school year; (2) a record is kept of weekly book and page placement of each learner; (3) this is transferred to a "class progress chart" showing the level of each learner; (4) a weekly report of learner progression is made to show degree of improvement, problem areas, etc., so that adjustments may be made in instruction; (5) the weekly report information is shown by pencil marks and read by an optical scanning machine; (6) placement of each learner is telephoned to a computer center where a check is made of individual shortcomings or successes for the week; (7) a specific objective is written for each learner based on progress and year-end objective; (8) this information is telephoned to the teletype and a list of new objectives is returned to the teacher.

Usefulness Related to CBE:	The system appears to provide educators with a vehicle for employing criterion-referenced measurement. In addition, the system maintains that direction and guidance are built into the educational process.
Related Materials:	None
Ordering Information:	This document is available (Order No. ED 076 652) from: ERIC Document and Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: $ .83 (microfiche), $1.67 (hardcopy) Plus postage

Title: Profiling and Tracking Students in C/PBTE Programs

Descriptor: A technical assistance paper detailing record-keeping systems for Competency/Performance-Based Teacher Education (C/PBTE) programs in three universities

Publication Date(s): May 1976, 56 pp.

Originator: Committee on Performance-Based Teacher Education, American Association of Colleges for Teacher Education (AACTE)

Intended Users: Anyone involved in the operation of a competency based teacher education program

Purpose: Authors state that this C/PBTE monograph series is "designed to expand the knowledge base about issues, problems, and prospects regarding PBTE," and that it is "targeted more specifically at providing solutions for the practical problems encountered by operators of performance-based programs."

Content: Three separate papers are presented in this monograph as follows:

1. "Computer Management of Student Records in a Competency-Based Teacher Education System," Paul D. Gallagher, Associate Dean, School of Education, Florida International University
2. "A Computerized Student Data System for CBTE Program Support," Rita C. Richey, Assistant Professor, Division of Teacher Education, and Fred S. Cook, Director, Institute for the Research and Development of Competency-Based Teacher Education, Wayne State University
3. "Profiling and Tracking Students Through the Utilization of a Computerized Information System," Joe Lars Klingstedt, Associate Professor of Curriculum and Instruction, and Stanley Ball, Assistant Professor of Curriculum and Instruction, University of Texas at El Paso

Usefulness Related to CBE: The computerized systems presented here provide considerable insight in the matter of storage and retrieval of information on student progress, individual and program evaluation, research, cost accounting and budget analysis. Descriptions can be helpful either in designing new systems or modifying existing ones.

Related Materials: An earlier series was published by this Committee of AACTE:

- *What Competencies Should Be Included in C/PBTE Program?* Patricia M. Kay, Washington, D.C.: American Association of Colleges for Teacher Education, 1975

Ordering Information: Write: Order Department
AACTE
One Dupont Circle, Suite 610
Washington, D.C. 20036

Cost: Information is not available.

Title:	OTIS Users' Competency Recordkeeping Handbook
Descriptor:	A description of the applications and uses of a competency record-keeping system in Oregon
Publication Date(s):	Date not given, 29 pp.
Originator:	Oregon Total Information System (OTIS)
Intended Users:	Designed for use by districts after local needs have been determined relative to record-keeping
Purpose:	The overall purpose of the description is to make districts aware of the options available to them in the use of procedures and forms. The reader will understand that there are several system options which are explained under the following headings: (1) competency file, (2) assignment of competencies, (3) reporting of competencies and (4) computer printed reports.
Content:	Following an overview explanation of the system is a discussion of the following major topics: ● Getting on the system ● Assigning competencies to courses or departments ● Methods of entering new competency demonstrations into the student files ● Special reports ● Miscellaneous (transfer students, special cases, standardized tests, future revisions of district competencies)
Usefulness Related to CBE:	After a district has analyzed its own specific needs and philosophies, a decision can be made whether to use all or part of the OTIS system.
Related Materials:	None
Ordering Information:	Write: Oregon Total Information System 1200 Highway 99 North Eugene, Oregon 97402

Ordering Information: (Continued)	Cost:	OTIS pays line charges for terminals installed in user districts in the following ratio: a. Districts of 1,500 ADM, or above: one terminal per secondary school plus one terminal at the business office b. Districts below 1,500 ADM but above 750 ADM: two terminals c. Districts below 750 ADM: one terminal

Title: Record Keeping for Individualized Instructional Programs

Descriptor: A publication which provides a model for two record-keeping systems to be used with individualized instructional programs

Publication Date(s): 1977, 64 pp.

Originator: David G. Armstrong and Robert H. Pinney, National Education Association, Washington, D.C.

Intended Users: Teachers seeking procedures for managing an individualized instructional program

Purpose: The purpose of this document is to provide models for both (a) a basic record-keeping system and (b) a more comprehensive record-keeping system which can be used by teachers who are implementing an individualized program.

Content: After providing an answer to the question, "Why Keep Records," the authors present and describe a mode for, and components of, both basic and more comprehensive record-keeping systems. The final chapter is designed to assist the user in systematically determining the extensiveness of any record-keeping system he or she plans to use and in keeping that system operating efficiently.

The authors guide the user through the important steps of planning for data collection by focusing on the question, "how much record-keeping is essential?" Finally, a short bibliography of related articles, books and monographs is provided for user reference.

Usefulness Related to CBE: The book should be particularly helpful to educators attempting to keep efficient records of students progressing through individualized programs designed to assist them in meeting competency standards or requirements.

Related Materials: None

Ordering Information: Write: NEA Order Department
The Academic Building
Saw Mill Road
West Haven, Connecticut 06516

Cost: $4.50

Title:	Needs Assessment: A Manual for the Local Educational Planner
Descriptor:	A manual which outlines a systematic process for identifying a needs assessment process and selecting solutions for meeting those needs
Publication Date(s):	1975, 81 pp.
Originator:	Division of Development and Operations, Rhode Island State Department of Education under a grant from U.S. Office of Health, Education and Welfare
Intended Users:	Educators involved in designing and conducting a needs assessment to secure information about the outcomes of education from both teachers and the community
Purpose/ Content:	According to the developers, "The purpose of this manual is to provide guidelines and assistance to local educational agency planners in the needs assessment process. In the first section, the needs assessment process is discussed within the overall framework of the program development cycle. Subsequent sections treat each step in the process, providing a model. Issues are raised, techniques are discussed, and alternative methodologies are presented. Important resources and necessary tools available to assist in the process are identified, along with some possible solutions. The manual is intended to be a concise outline of systematic processes for identifying needs and choosing solutions to respond to these needs."
Usefulness Related to CBE:	The manual serves as a planning guide for the teacher and community needs assessment phase of a CBE program.
Related Materials:	None

Ordering Information: Copies of this document are available (Order No. ED 106 978) from:

ERIC Document and Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Cost: $ .83 (microfiche), $4.67 (hardcopy)
Plus postage

Title:	A Comparative Analysis of Two Modes of Implementing Competency Based Instructional Systems
Descriptor:	A paper presented at the 1974 AERA convention which examines two methods for developing and implementing the basic components of competency based instruction
Publication Date(s):	April 1974, 8 pp.
Originator:	Robert T. Utz et al.
Intended Users:	Educators and administrators responsible for developing and/or implementing competency based instructional systems
Purpose:	The authors state that the objectives of the paper are: 1. "To examine the theoretical framework, the social contexts, the staffing constraints, the inservicing, the implementation phases and the feedback mechanisms of these two programs 2. To analyze these components as to their similarity and dissimilarity, noting particularly their degree of functionality 3. To synthesize generalizations potentially applicable to the implementation of any competency based instructional system"
Content:	The paper deals with such topics as issues and problems in CBE implementation, the development and implementation of the CBE model in the Toledo schools, large scale program implementation in the Toledo Diocesan Schools, staffing implicacions for CBE programs and, finally, educational implications which can be discerned from these two experiences.
Usefulness Related to CBE:	Readers of this paper should gain insight into the successes and difficulties which result from two different types of CBE program implementation.
Related Materials:	None

Ordering Information:	This document is available (Order No. ED 089 468) from:

ERIC Document and Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Cost: $ .83 (microfiche), $1.67 (hardcopy)
Plus postage

Title:	Planning and Conducting Individualized Inservice Workshops
Descriptor:	A report presenting a process for designing and conducting individualized inservice workshops
Publication Date(s):	1973, 20 pp.
Originator:	David W. Champagne et al.
Intended Users:	District administrators and supervisory personnel who are designing inservice workshops for school district professional staff
Purpose:	To provide readers with skills and knowledge related to a process for planning and conducting inservice workshops which will enable them to: a. Clearly and accurately describe the process b. Suggest ways to apply and adapt the process to their situations c. Plan these applications and adaptations
Content:	This report presents a detailed description of a planned, goal-oriented, skill building inservice training program and implementation process. The processes of the workshop are described in terms of specific objectives and the following processes: planning, scheduling, participant selection and a workshop evaluation. This publication details the organization and implementation process used in a follow-through project and K-3 program for poverty-stricken children. The final section contains an analysis of those parts of the process which appear to have the widest applicability to other settings.
Usefulness Related to CBE:	This report is a management tool for administrators designing workshops to advance long range district and program goals.
Related Materials:	None

Ordering Information: This document is available (Order No. ED 084 245) from:

ERIC Document and Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Cost: $ .83 (microfiche), $1.67 (hardcopy)
Plus postage

Title: Management by Objectives and Results: A Guide Book for Today's School Executive

Descriptor: An overview of the Management by Objectives and Results movement for educational managers and administrators

Publication Date(s): 1973, 80 pp.

Originator: Steve Knezevich, American Association of School Administrators

Intended Users: Educational managers who want a brief, practical overview of the Management by Objectives and Results (MBO/R) movement

Purpose: This publication provides the theoretical base of the MBO/R system of management and makes suggestions for the kit's practical application.

Content: Following a discussion of the relation of MBO/R to the field of education, the author discusses MBO/R as a personnel management system and as a comprehensive management system. In Chapter 4 the author describes how to generate and work with educational objectives. The author considers the production of a work plan, the allocation of resources, the monitoring function and the means for keeping on target. A general change model with an accompanying discussion of the various phases is the final section of the guidebook.

Usefulness Related to CBE: This publication may be useful to administrators selecting a management method for both instructional and personnel programs and/or projects.

Related Materials: None

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Title: Fulfilling the Mission... A Program for Excellence, Efficiency and Effectiveness

Descriptor: Five publications outlining tasks to be undertaken in the designated implementation of a districtwide CBE system

Publication Date(s): October 1976, 225 pp.

Originator: District of Columbia Public Schools, Washington, D.C.

Intended Users: Educators involved in the design and implementation of a districtwide CBE program

Purpose/ Content: This document describes the program developed by the District of Columbia for the implementation of a districtwide competency based education system for grades pre-K through 12. Presented is an overview of program goals, priorities and strategies. This volume also contains a description of four more booklets which details the various aspects of design, delivery, organization, planning and evaluation relating to program implementation.

In addition to the overview of goals, this prospectus provides two detailed charts. These charts outline the major tasks to be accomplished in the development of a design for a competency based curriculum and identify those offices having primary responsibility for the completion of each specified task.

The second document is concerned with curriculum design and presents the sequence of behavioral tasks students are expected to perform along the pre-K through 12 continuum. It also lists the skills students need in order to compare the specified tasks.

The third booklet focuses upon the design for the delivery of educational services. Critical functions of the instructional system are identified along with the goals in the delivery system. The fourth publication outlines the organizational scheme for the district which is designed to facilitate effective implementation and evaluation of that curriculum. The final booklet focuses on (1) the district's Division of Planning and (2) the role of the Division of Research and Evaluation.

Usefulness Related to CBE: As an overview of a plan for implementing CBE within an entire school district, these publications used together could serve as guidelines for other districts interested in CBE program implementation.

Related Materials: None

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